2019

How Do After-school Staff Use Social Networks to Support At-risk Youth? A Social Capital Analysis

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HOW DO AFTER-SCHOOL STAFF USE SOCIAL NETWORKS TO SUPPORT AT-RISK YOUTH? A SOCIAL CAPITAL ANALYSIS.

by

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A dissertation submitted in partial fulfillment of the requirements
for the degree of Doctor of Education
in the Department of Learning Sciences and Educational Research
in the College of Community Innovation & Education
at the University of Central Florida
Orlando, Florida

Summer Term
2019

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ABSTRACT

Little is known about the social capital of adults in after-school settings or the ways in which they use social contacts to support youth success, particularly for at-risk youth. Their effectiveness as brokers for learning opportunities may depend on aspects of their social capital: both the quantity and quality of their social networks as well as their attitudes and beliefs related to seeking help from social contacts. This mixed-methods study surveyed 50 after-school program staff serving teens in high-poverty neighborhoods to examine the characteristics of adult social capital and to explore attitudes towards mobilizing social resources to support youth. Surveys measured social network size (total contacts), network social status (average prestige of known occupations), and network orientations, as well as social resource mobilization (brokering). The results of an initial logistic regression found that only total known contacts was a significant predictor of resource mobilization. Six participants were identified for follow-up interviews. Exposing youth to novel experiences emerged as a critical theme related to youth interest development and adult brokering action. Interviews also indicated that structural elements of youth programs might influence the need for staff to draw on personal connections, suggesting possible targets for intervention. This study provides novel insight into the characteristics of the social networks held by adults working in after-school programs, as well as into the attitudes and beliefs held by these individuals towards brokering learning opportunities for youth.

ACKNOWLEDGMENTS

I would like to express my gratitude to the individuals who made this dissertation possible:

To my committee chair, Michele Gregoire Gill, for providing unwavering support and encouragement during challenging times and to all of my committee members for your thoughtful feedback.

To all study participants who graciously took time from their busy schedules to support this study; thank you for your devotion to ‘your kids’ and for your valuable insights into working with marginalized youth.

To the students and staff of New Image Youth Center, for being my inspiration and motivation.

And to my family: I’m done, I promise. Love you all.

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CHAPTER ONE: INTRODUCTION

After-school programming is now widely available in the United States, with 57% of U.S. children between the ages of 6 and 17 years old participating in at least one extracurricular activity (Laughlin, 2014). Once viewed as a form of extended childcare during eras where more women entered the workforce, there is now increasing recognition that such programs can have an important impact on youth development (Mahoney, Parente, & Zigler, 2009; Smith, Akiva, McGovern, & Peck, 2014). Historically, programs targeting low-income youth have primarily touted the benefits of keeping students off streets during a daily period known for high-crime activity (Halpern, 2002), despite considerable evidence that participation promotes other positive youth outcomes in areas such as academics, social and emotional development, and health and wellness (Little, Wimer, & Weiss, 2008). However, it is also evident that program quality plays an important role in achieving the positive outcomes listed above. Given the promising evidence of impact of after-school programs and an acknowledgement that not all programs maximize potential for impact, Granger (2010) suggested that researchers shift their focus from, "'do programs make a difference,' to 'why are some programs effective while others are not?'" (p. 441). The present study explores possible influences on the efficacy of after-school programs located in urban, low-income communities by closely examining the contributions of adult staff members. However, I will first review current literature on after-school programs with a focus on marginalized youth.

Background

One possible explanation for differential outcomes among after-school programs is that they are often linked to the socio-economic status of communities, with wealthier and larger schools providing more opportunities for participation in an array of high-quality programs (Stearns & Glennie, 2010). As schools face shrinking activity budgets, districts are faced with the choice of cutting programs altogether or turning to family and community investment, which has been shown to unintentionally widen the gap between wealthier and poorer schools (Reich, 2005). Others have shown that access to high-quality after-school programming is typically limited in high-poverty areas (Mahoney, Larson, & Eccles, 2005), despite evidence to suggest that low-income students are most likely to benefit from participation in high-quality activities (Mahoney et al., 2005; Morris, 2015). A recent national survey showed that, among low-income families and families of color, the unmet demand for after-school programs is higher than that of wealthier, white families, with poor families citing high costs and a lack of available and safe transportation to programs as key factors in not enrolling a child in a program of interest (Afterschool Alliance, 2014). In communities of concentrated poverty, defined as those with a poverty rate of 30% or more, 67% of parents reported difficulty finding enriching after-school activities for their children compared to 46% of parents living outside such areas (Afterschool Alliance, 2016).

Further, higher-income families have particularly embraced after-school programming as an enrichment mechanism to prepare students for post-secondary education and beyond (Lareau, 2011). Expenditures on enrichment activities in upper-income households more than doubled between 1972 and 2006, while low-income household expenditures on such activities remained relatively stagnant over the same time period (Duncan & Murnane, 2011). Snellman and colleagues (2015) provided further evidence of class-based differences in participation across a similar time frame, with gaps emerging in extracurricular involvement as income inequality has risen, along with an increase in fee-based programming. Other researchers have found that participation rates in extracurricular activities were significantly impacted by socio-economic status of families (Covay & Carbonaro, 2010), suggesting that when schools lack resources, families with financial means are able to compensate with additional programming but poorer families are not.

Differential participation in after-school activities by various social groups has been dubbed *the engagement gap* and is implicated as one contributing factor in the concerning *achievement gaps* seen in academic outcomes between minority students and their white peers (Snellman et al., 2015). Specifically, it is argued that engagement can be beneficial to students by developing important precursors for academic success. Some authors have found that participation in quality after-school programs can help develop ‘soft’ skills, such as leadership and prosocial behaviors while simultaneously decreasing risky behaviors (Eccles, Barber, Stone, & Hunt, 2003), and regular participation is associated with improved health, civic engagement, and occupational attainment later in life (Snellman et al., 2015). Programs can also play an important role in sparking and sustaining youth interests across settings, which may, in part, explain why students engaged in extracurricular activities are more likely to have higher grades and academic expectations than their non-participating peers (Fredricks & Eccles, 2006).

The ability of after-school programs to cultivate student interests may be of particular importance as schools become increasingly accountable to content standards and assessment testing, narrowing curricula to accommodate this shift, and greatly reducing the classroom time available for non-tested subjects (Berliner, 2011; Srikantaiah, 2009). As opportunities become more limited for students to choose relevant and personally meaningful elective coursework, intrinsic motivation to learn may decrease (Amrein & Berliner, 2003). For non-dominant students who may already feel marginalized by school cultures and curricula that reward ethnically ‘white’ behaviors and traditions (e.g., Barajas & Pierce, 2001; Fordham & Ogbu, 1986), the additional damage to motivation through a limited curriculum may result in disengagement from school and from learning in general.

With few to no limits on the types of programming they can offer, after-school programs are uniquely positioned to link disenfranchised youth to their personal interests and support increased motivation. Others have suggested that increasing interests in informal learning spaces can result in improved learning, engagement, and performance across the academic spectrum (Barron, 2006; Ito et al., 2013). Therefore, after-school programs are an important mechanism for supporting academic, social, and emotional learning in non-dominant youth and can promote more equitable outcomes for marginalized students. This study will explore how adults working in after-school settings may contribute to these desired outcomes.

Statement of the Problem

In high-income communities, parents play a key role in helping youth navigate the educational systems that can promote interest development, particularly when choosing after-school programs and activities. While the primary driver of program selection is typically youth interest (Akiva & Horner, 2016), parents often *broker* learning opportunities, or make a concerted effort to help children locate age- and skill-appropriate programs (Louw et al., 2017). Adults frequently express frustration that youth opportunities are hard to find, fragmented, or redundant (Ching et al., 2015; Louw et al., 2017) When faced with these challenges, parents can engage in brokering for their children by tapping colleagues or other personal contacts for opportunities, advice, or other information related to a subject of interest (Barron et al., 2009; Louw et al., 2017). In the absence of personal resources necessary to support interest-driven learning in youth, parents leverage their social networks to seek out and obtain resources held by others. These resources are considered a form of capital, referred to as *social capital*, that can be bartered in a similar manner to financial capital. The ability to obtain social capital, however, is dependent on the quality and quantity of one's social network. Without a network of relationships that can provide needed resources, parents are unable to connect children to programs, information, and institutions of interest; in other words, adults with more social capital are more effective brokers.

In marginalized or impoverished communities, the role of learning broker is often played by individuals within after-school organizations. Stanton-Salazar (2011) recognized the important role non-parent adults can play in the lives of marginalized youth in his work on *institutional agents*: "high-status, non-kin, agents who occupy relatively high positions in the multiple dimensional stratification system, and who are well positioned to provide key forms of social and institutional support" (p. 1066). He developed a framework that suggested the effectiveness of an institutional agent is contingent upon the resources contained within the agent's social network, or social capital, and on the likelihood that the agent will tap into those resources, or the agent's *network orientation*. For an agent to successfully broker a learning opportunity for a youth, the resource must be accessible through the agent's social network and the agent must also have the desire to mobilize that resource as the result of holding a positive network orientation. Little is known about how adults in after-school programs serving low-income youth broker learning opportunities, or even if all programs include individuals who might have the social resources to qualify as an institutional agent given the definitional focus on the agent's own high status. However, Stanton-Salazar's framework would still logically apply even to individuals of lower status; absent a positive network orientation, or an inclination to ask for resources on behalf of youth, even available resources connected to lower-status may go un-mobilized.

There is also some evidence to suggest that current funding mechanisms and competition between programs may hinder brokering efforts given the risk that a student may leave for another opportunity (Akiva, Kehoe, & Schunn, 2017). However, at a more basic level, it may be simply that the resources to support learning opportunities do not exist within the networks held by adults in the organization. Ching, Santo, Hoadley, and Peppler (2016) noted that, "to effectively broker relevant opportunities, educators must have knowledge of learning opportunities" (p. 305), but it is unclear how educators learn of opportunities for their students. Youth have reported that network contacts, such as teachers, parents, and peers, are a primary source of information when seeking activities (Castrechini & Ardoin, 2011), but parents (Knutson, Crowley, Russell, & Steiner, 2011) and program educators (Ching et al., 2016) indicated information on opportunities is often fragmented and not well-aligned with student interests. This suggests that one important channel for information exchange in support of student interest development is through the social networks of adult educators.

To summarize, the mobilization of resources contained within social relationships is a potentially important mechanism for linking youth to learning opportunities that promote interest-development and intellectual growth. In non-dominant or marginalized communities, it has been suggested that non-parent adults may supplement, or in some cases entirely supplant, the brokering efforts of parents who may lack the resources necessary to do so effectively (Stanton-Salazar, 2011). A model of brokering by non-parent adults has been suggested by Ching and colleagues (2015), but with little focus on the role of adult social capital and network orientation. Rather, their exploration focused primarily on the relational aspects of brokering between adult and student, as well as on student attributes, such as help-seeking orientation. Despite the relative importance of brokering for student interest development, little is known about if or how the networked resources and personally-held attitudes or beliefs of non-parent adults impact the brokering process in programs serving marginalized youth.

Theoretical Foundations

Theoretical concepts from the field of sociology provide insight into the persistent educational inequalities that are seen between marginalized students and their dominant peers. A brief introduction to the general sociological traditions that will frame this study is provided below, while a more detailed review of relevant literature is found in Chapter 2. Additionally, ecological systems theory provides a framework for understanding how interactions across multiple levels of the broader educational landscape can result in differential outcomes for various groups of students.

Sociological Perspectives

Stemming from Karl Marx’s writings related to group conflicts in capitalist societies, conflict theory addresses societal stratification of various groups, with status derived from economic position, culture, race, ethnicity, religion, gender, or any other variable that might be differentiated by power. Conflict theories help to explicate the social processes that result in reproduction of class structure over generations. Applying conflict theory to educational attainment and achievement, researchers have found that persistent educational inequality has remained stable or even expanded in industrialized countries over the course of the 20th century (Shavit & Blossfeld, 1993).

Schools are posited to be an important mechanism by which social stratification is reproduced, reflected in the stability of achievement gaps as described previously. Differences in school quality, tracking, teacher expectations, and disciplinary referrals are implicated as forms of institutionalized bias that hamper the academic efforts of students from marginalized groups (Van Laar & Sidanius, 2001). Despite common conceptions of education as a meritocratic institution, where intelligence, diligence, and perseverance result in improved economic and social stability later in life, researchers have painted a far less positive outlook for students living in poverty. MacLeod's (2008) longitudinal ethnography of two groups of young men, one mostly white and the other mostly black, from the same housing project who attended the same neighborhood school showed that class structures are highly resistant to change. Despite having higher academic aspirations and enrolling in academically more challenging tracks than their white peers, black students were no more successful later in life. Poor white students, on the other hand, held very few educational aspirations and many eventually dropped-out of high school, consistent with the idea that low status groups may engage in self-protective behaviors, such as devaluing an achievement ideology in an effort to retain self-esteem (Van Laar & Sidanius, 2001). MacLeod's work showed, "how rigid and durable the class structure is. Aspiration, application, and intelligence often fail to cut through the firm figurations of structural inequality" (2008, p. 242).

Other researchers have explored how individual protective mechanisms can result in group-level disadvantage, essentially reinforcing class structure in a self-fulfilling manner. For example, Fordham and Ogbu (1986) documented the academic disengagement of African-American students who began to associate achievement with 'acting white' and therefore rejected achievement as an act of opposition to prevailing dominant groups. Despite the temptation by some to assign responsibility for such decisions to individuals, social theorists argue that these behaviors are rational reactions to the hard realities of collective subordination, particularly in light of evidence that protective behaviors are not limited to specific racial or cultural groups but are seen across low status groups in multiple societies (Sidanius & Pratto, 1999; Van Laar & Sidanius, 2001).

Using sociological perspectives, it becomes clear that the processes reproducing inequalities in educational settings may be situated at individual, group, and institutional levels, and that interactions among and between levels can result in observed outcomes. As such, theoretical approaches that are designed to explore systems interactions provide a useful lens with which to examine these issues. The next section provides a short overview of social-ecological theories, which often rely on metaphors from the biological sciences (such as natural ecosystems) to explore and explain the interconnectedness and complexities of multi-level systems.

Ecological Perspectives

Barron (2004) coined the term *learning ecology* to describe "the accessed set of contexts, comprised of configurations of activities, material resources and relationships, found in co-located physical or virtual spaces that provide opportunities for learning" (p. 6). Like their biological counterparts, diversity and interdependence are key characteristics for a healthy educational ecosystem (Barron, 2006; Knutson et al., 2011). In a study of informal learning ecosystems in environmental education in a mid-sized, urban region, Kehoe, Russell, and Crowley (2017) found a wealth of program offerings and opportunities for learning but noted that connections between institutions were typically dependent on individual teachers rather than organizational affiliation. The authors also noted differential access to more advanced programs for some learners.

Within a learning ecology, learners follow unique pathways that are generally determined by their interests, incorporating increasingly specialized extracurricular activities as they deepen their interests and develop new skills. For individual learners, well-established motivational and socio-cognitive theories and corresponding lines of research provide empirical support for the assertion that students learn best when interested. Interest is deeply entwined with motivation and researchers have suggested interest-driven learning as a primary mechanism for motivating academically disengaged students (Harackiewicz, Smith, & Priniski, 2016; Hidi & Harackiewicz, 2000). However, as noted above, the ability of a young person to pursue educational interests is implicitly determined by factors that exist across multiple contexts and settings, from academic institutions to neighborhood schools to family cultures. Rooted in Bronfenbrenner's (1979) ecological systems theory that seeks to explain interactions between individuals and their broader environmental and cultural contexts, the learning ecology framework can be used to explore barriers to interest-driven learning across these multiple levels.

How, then, does the learning ecology framework explain disparities even in the presence of numerous, diverse opportunities? Barron (2006) noted that her ecology metaphor differs from other popular conceptions of the term in that the individual is the central organizational node, rather than the general environment as a whole. This means that learning ecologies within the same geographic region may be more connected for some students than for others based on communication channels established through social networks. Students from disadvantaged backgrounds have fewer entry points to learning pathways within a given ecology and face more road-blocks as they attempt to deepen interests (Ching et al., 2015). It is important to recognize that opportunities for marginalized youth are shaped by numerous interactions across a learning ecology, including through the social connections of the adults in their lives. Without a network of peers and adults who have access to institutionalized resources, even students living in a geographic region replete with learning opportunities may find themselves isolated from the pathways necessary to connect to them.

Summary

For advantaged youth who are provided opportunities to pursue interests with the help of well-connected adults, the ability to deepen interests and connect to important institutional gatekeepers by navigating complex educational pathways already exists, contributing to improved motivation, academic engagement, and maintenance of social status. The implications from an examination of sociological and ecological theories are clear: for lower status youth to achieve social mobility, they not only need opportunities for interest development and learning outside of school, they also need those opportunities to create connections to individuals and institutions that hold key resources for upward mobility.

Significance of the Study

The findings of this study have implications for the design and implementation of after-school programs. While many youth programs include training for staff, professional development efforts often focus on novel technology adoption, classroom management skills, or other interventions aimed at increasing internal capacity of the organization. Some authors have put forth suggestions that may increase adult brokering abilities (e.g., Ching et al., 2015; Stanton-Salazar, 2011), such as explicitly discussing brokering practices or creating a ‘brokering point person’ within the organization to facilitate communication. While these are viable and practical suggestions, they would be most useful in situations where the resources are already present but not frequently accessed for support.

A lack of resources held by collective organizational networks versus a reluctance or inability by individuals to tap into social resources are fundamentally different problems that require different solutions. Thus, the results of this study will not only generate new insights on the social networks of adults working with at-risk youth in after-school settings but will also provide clarification on the relative importance of adults’ social network attributes versus network attitudes as key leverage points prior to engaging in expensive and time-consuming interventions.

Purpose of the Study

Currently, research on brokering by non-parent adults in after-school programs as a function of social network attributes and attitudes is limited. A number of case studies provide evidence of the ways in which adults can broker learning opportunities to promote student outcomes (Barron et al., 2009; Ching et al., 2015; Ito et al., 2013; Louw et al., 2017), but no studies to-date have attempted to measure the social network characteristics and beliefs of non-parent adults and quantify their impact on brokering ability via resource mobilization. Therefore, this study aimed to refine and test a conceptual model of brokering in after-school programs to provide clarification of relationships between important constructs and encourage the development of interventions that are grounded in research.

Research Questions

This study used a mixed-methods approach with the following research questions guiding the quantitative exploration:

1) What is the relationship between non-parent adult social network characteristics, network orientation, and social capital mobilization?
    a. Does non-parent adult network social capital predict social capital mobilization?
    b. Does non-parent adult network orientation predict social capital mobilization?

Following quantitative data collection, the following research question was used to guide qualitative exploration:

2) How and why do non-parent adults in after-school programs support youth interest development using social network connections, if at all?

CHAPTER TWO: LITERATURE REVIEW

Introduction

In this chapter, I integrate literature from a variety of scholarly fields to develop an updated model of brokering by adults in after-school programs. First, the role of youth interests is explored as both a critical motivational variable as well as an important variable promoting brokering actions by adults. Second, I review literature on social capital and provide a rationale for situating the present study within network theories of social capital. Finally, the ecological perspectives discussed in Chapter 1 are used to support understanding of how individual motivational factors, interpersonal relationships, and broader social norms and patterns can combine to influence brokering actions on behalf of marginalized youth.

Interest and Motivation

Interest is a unique motivational variable that has been shown to have an impact on attention, goals, and level of learning (Hidi & Renninger, 2006). It has been demonstrated to have both a cognitive and affective component, and may actually be an adaptive evolutionary mechanism; neuropsychological evidence shows that interest is located in the area of the brain suggested to have promoted 'seeking' or foraging for food in early humans (Hidi, 2006). In terms of learning, the positive affect typically experienced during interest-deepening activities improves focus, persistence, and performance (Hidi, 2006), and may even lead to a state psychologists have called *flow*, which is a complete and nearly subconscious immersion in activity that some have called an ideal state of being (Csikszentmihalyi, 1988; Nakamura & Csikszentmihalyi, 2014).

Specifically, interest is defined as a "long-term relationship with a specific domain, characterized by positive feelings, higher values, and deeper knowledge that displays itself in the tendency to reengage voluntarily in interactions over time" (Hofer, 2010, p. 152). It has been implicated as a key factor in motivating academically unmotivated students, including youth at-risk of dropping out of school (Hidi & Harackiewicz, 2000). A number of scholars have proposed interest-driven learning as a broad mechanism to engage and support multiple categories of non-dominant or marginalized youth (e.g., Edelson & Joseph, 2001; Harackiewicz et al., 2016; Hidi & Harackiewicz, 2000). Engagement in interest-based activities is also associated with risk-reduction and developmental benefits for at-risk youth (Lerner et al., 2011; Romer, 2010).

Hidi & Renninger's (2006) four-phase model of interest development describes the progression a learner may take through different forms of interest, in the event that it is sustained throughout all four phases. Interest can also fade and disappear altogether if not supported and developed throughout each phase. Phases one and two, *triggered situational interest* and *maintained situational interest*, may be of greatest importance for classroom educators. During these phases, a learner is triggered by the content enough to pay attention and if this initial interest is fostered by a mentor, teacher, or peer, it may be maintained long enough for the student to re-engage with the material. In this manner, a highly successful teacher may engage a student with an affinity for history in an interesting science project long enough to achieve the cognitive goals of the lesson, yet the student does not develop strong personal interest in the sciences.

On the other hand, students who begin to feel a sense of identity or ownership related to a particular topic are suggested to be in the *emerging personal interest* phase. Goal-orientations may shift during this phase: external motivations, such as obtaining a class grade, may dominate situational interest, whereas personal interest tends to be characterized by a need to satisfy curiosity. As positive affect toward the content increases and a student continues to re-engage over time, they enter the *well-developed individual interest* phase, where knowledge continues to deepen and individuals seek out challenges and opportunities to practice or develop skills. Hidi and Renninger (2006) refer to each of their four phases as *states*, in contrast to more fixed constructs, such as personality traits. Other scholars have addressed this distinction, as well. For example, Silvia (2001) emphasizes the distinction between situational and individual interest by suggesting that the singular *interest* in the first two phases is primarily an emotion that resides within an individual, much like a personality trait, but plural *interests* arise from repeated cognitive and emotional engagement, resulting in a more prolonged state of interest in a given subject. However, Hidi and Renninger (2006) argue that Silvia ignores the importance of the individual's interaction with the environment as a mechanism for moving one through the four states of interest. Situational interest has typically been the focus of learning researchers concerned with creating more interesting texts or understanding the stimuli of interest while individual interest has greater relevance to those interested in motivation over time (Schiefele, 1991). Some scholars have argued that because individual interests provide such a powerful motivational force for learning, interest development should be the primary goal of schools and learning institutions (Bergin, 1999; Hidi, 2006; Maehr, 1976).

Interest also plays an important role in career choice, which may ultimately influence social mobility and career attainment. Lent, Brown, and Hackett (1994) proposed a theoretical model of career development, relying heavily on Bandura's social-cognitive perspectives (see Bandura, 1977, 1993). From a motivational perspective, enduring interests develop over time when a person holds high self-efficacy and anticipates positive outcomes related to an activity. Thus, repeated feedback loops of increasing self-efficacy and outcome expectancy support increased interest in relation to career choice. Importantly, Lent and colleagues expanded their model beyond the individual, noting the heavy influence of external contextual factors on career choice. They hypothesized that differences in opportunity structures, supports, barriers, and socialization norms can lead to observed racial, ethnic, and gender differences in career choice. They further suggested that under conditions of limited educational and economic opportunity, interest plays a reduced role in career choice, secondary to job availability, outcome beliefs, and self-efficacy.

Using Lent and colleagues' model, it is clear that interest not only plays an important role in supporting the cognitive and academic growth of individuals but can also be a link to upward mobility through a chosen career path. From a broader population view, career opportunity may be more limited in low-income communities, leading many students to choose a familiar career pathway with low barriers to entry rather than one of greater interest. For example, two students may have a strong personal interest related to child development; the first student is embedded in family network of physicians, leading to her interest in psychiatry and a highly-paid career in medicine. The second student, with the same early interests, is provided with little exposure to varied careers nor with educational opportunity and instead enters the child care field, earning little more than minimum wage. Note that the goal of this thesis is not to argue for the relative value of one career over another- both positions hold import to society, yet in reality both do not provide equal opportunity for upward mobility nor are they chosen as career options at equal rates across various races, ethnicities, genders, or social classes (Fouad & Byars-Winston, 2005; Lent et al., 1994; Morgan, Isaac, & Sansone, 2001). Hence, the focus here is on opportunities that can enhance economic equity for disadvantaged populations. The next section will explore how after-school programs may be well-positioned to support interest development, perhaps even more so than schools.

After-School Programs

Although many after-school programs include an academic component, they are generally not just an extension of the school-day. One obvious difference is that nearly all after-school programs are voluntary, meaning student interest tends to be an important driver of participation (Akiva & Horner, 2016). Dawes and Larson (2011) found that youth in informal learning or after-school programs reported higher engagement following the development of a strong personal interest in the activities or content. Barron (2006) further argued that these interests sparked informally can deepen across multiple settings as students develop personal identity and agency, leading students to seek out and engage with more formal learning opportunities.

Although after-school programs take many forms, a recent report categorized programs by three general types: academically-focused, multipurpose (includes a mix of homework help and recreation), and specialty programs, such as those aimed at skill-building in athletics or technology (McCombs, Whitaker, & Yoo, 2017). Multipurpose programs that do not target students through a specific interest, such as STEM or the arts, are commonly located in or partner with schools to act as an after-care facility. As mentioned in Chapter 1, the necessity of these programs for working families is starting to be seen as secondary to the benefits they can offer in terms of youth development. For one, students who attend such after-school programs tend to conceptualize them as home-like environments (Hirsch, 2005). Bergin (1999) found that student sense of relatedness, or the degree to which they felt they belonged, influenced interest in a classroom setting. After-school programs with a large body of regular attendees may be ideal settings to expose students to new areas of possible interest, leveraging the sense of belonging that can support engagement in new activities.

Others have suggested that after-school and informal learning environments are prime targets for enhancing intrinsic motivation in youth because they often combine challenging aspects of classroom learning with the more relaxed atmosphere common to socialization, leading to a variety of positive academic and social outcomes (Larson, 2000; see also Ito, 2010). Csikszentmihalyi and Larson (1984) conducted an analysis of high school students' psychological states in classrooms and during informal experiences with peers, finding classroom settings prompted low intrinsic motivation but high concentration and challenge. During periods of hanging out with peers, the relationships were reversed, revealing high intrinsic motivation but low challenge and concentration. Finally, a follow-up study conducted by Larson and Kleiber (1993) found that in both sport-focused and academic-focused after-school programs, students reported high intrinsic motivation, concentration, and challenge. The more relaxed settings found in after-school programs coupled with the lack of evaluative pressure may be important facilitators of enjoyment and deepened interest. Over time, informal learning environments that provide opportunities for targeted practice in a domain lead to increased ability, further improving student self-efficacy and positive outcome expectations, with the potential to ultimately influence vocational decisions. This further suggests that after-school programs in middle and high school that leverage intrinsic motivation can be a particularly relevant target for career development, as interest in broad career domains tends to stabilize by late adolescence (Hansen, 1984).

Interestingly, students who participated in after-school activities that provided guided, student-driven projects developed over time showed changes in their use of language, shifting toward what Heath (1983) called a language of *agency*. She noted that students began to not only use more domain-specific vocabulary, as one might expect with deepened understanding of a field, but also showed changes in tone and register that were more similar to those of adults in the workplace, indicating advancements in communicating, negotiating, and problem-solving skills. These findings demonstrate how interest-based learning could be a particularly useful aspect of vocational preparation for youth who may otherwise lack exposure to common forms of institutional discourse.

In addition to a personal affiliation with a content area, student interest is also highly influenced by social relationships. Particularly in the early phases of interest development, external support from teachers or mentors can be critical for sustaining interest (Hidi & Renninger, 2006). Further, adult role models can play a critical role in identity development in youth people (Renninger, 2009; Rhodes, Spencer, Keller, Liang, & Noam, 2006), with identity beliefs suggested to be an important element of the shift into the well-developed personal interest phase discussed above. The next section will examine the role of after-school program staff in sparking and supporting interest development in youth.

After-School Staff and Interest Development

Despite the important role adult staff members play in supporting youth interest development, they are typically overlooked in the published literature, with most researchers focusing on the role of parents (e.g., Barron et al., 2009; Knutson et al., 2011) or teachers (Bergin, 2016). One reason for this may be the great variety of after-school programs and the corresponding diversity of program providers, making them more difficult to study. For example, it is known that many youth service workers enter the field with little education or training and often lack opportunities for professional development (Bowie & Bronte-Tinkew, 2006) but 'typical' profiles of staff are difficult to find due to the heterogeneity of programs. There are no agreed upon standards or competencies for career development of youth service workers, nor are there explicit incentives for employers to provide such development opportunities (National Collaborative on Workforce and Disability for Youth, 2012). Thus, the knowledge, skills, and prior work experiences of youth service staff can vary dramatically from program to program, and even within programs, leading to challenges for researchers attempting to generalize findings.

Although few agreed-upon qualifications or employment criteria exist, the quality of staff in an extracurricular program has been shown to be one of the most critical features of overall program success (Little et al., 2008; Rhodes, 2004). Research in youth development shows student relationships with adults in after-school programs tend to fall somewhere between those with formal school teachers and family members, with staff members engaging in academicallyoriented instruction as well as more informal conversations around social and emotional development (Hirsch, 2011). Scales, Benson, and Mannes (2006) found that youth participating in informal programs had not only more frequent interactions with non-kin adults, but that the relationships were qualitatively different from those held by less-involved youth. Participating students were more likely to note that non-kin adults helped guide decision-making, had meaningful conversations with them, or sought youth opinions. Others have noted that support and encouragement from adult staff members promotes increased after-school program participation (Gambone & Arbreton, 1997) and that positive academic outcomes seen as a result of participation are, in part, the result of the environment established by caring adults, perhaps even more so than an explicit focus on academic skills (Grossman et al., 2002). These social interactions are suggested to be the foundational building blocks for youth development (Jones & Deutsch, 2011). The flexibility of program time and lack of curricular pressures allow staff to develop strong bonds with students that have been linked to positive outcomes (Rhodes, 2004), with empirical evidence to demonstrate the necessity of these relationships for youth to identify programs as home-like environments (Hirsch, 2005).

One way in which after-school staff can leverage their unique relationships with youth is through *brokering*, which was briefly discussed in Chapter 1. Ching, Santo, Hoadley and Peppler (2015) define brokering as “one person’s act of providing resources or helpful services to another” (p. 300). Parents frequently act as *learning brokers* who seek out educational opportunities for their children using multiple sources of information, such as talking with other parents, searching the internet, and contacting professional connections (Barron et al., 2009). Clearly, not all brokering actions require social relationships; for example, searching the internet can be done assuming access and sufficient technological ability. However, brokering that requires the engagement of other individuals for the exchange of information of resources is referred to as *transactional*, to differentiate it from non-social brokering acts (Louw et al., 2017). Although other individuals may also broker learning opportunities, including other adults within the family, non-family adults, and peers (Ching et al., 2015), brokering is most commonly identified by scholars as an action undertaken by parents in support of a child's interest development (e.g., Barron et al., 2009; Louw et al., 2017). However, there is increased recognition that learning brokers in marginalized or impoverished communities are often key individuals within organizations, such as teachers, mentors, and after-school program staff (Stanton-Salazar, 2011) who assist youth in navigating various pathways for interest development.

Of course, adults can also use directly held personal resources (such as time, money, or knowledge) to support youth interests. However, it would be inappropriate to expect that even the most qualified of after-school staff, often outnumbered by students at ratios of 20:1 or greater, would have the personal expertise or ability to directly support interest development in all students, particularly in multipurpose programs that lack a specific content focus. Further, it is a reasonable assumption that most after-school staff lack expertise in an academic content area, considering published best-practices that suggest hiring staff from the student populations at local colleges and universities or from within the same impoverished communities in which the programs exist (Birmingham, Pechman, Russell, & Mielke, 2005). That is not to say such individuals do not have important abilities or even well-developed interests of their own that can benefit youth; again, the focus here is on mobility related to social structures that provide economic advantage to some individuals but not others. As Stanton-Salazar (2011) noted:

> Although many nonparental adults and extended kin can make positive contributions to the socialization and development of youth, not all may have the human, cultural, and social capital to truly alter an adolescent's social mobility—particularly when we are speaking about working-class youth and their constricted social universe. Working-class nonparental adults and extended kin may contribute in the form of helping to inculcate particular aspirations, values, norms, and mores, or to engender a positive ethnic identity; but nonparental adults…may not have the "capital" to exert authority over a school administrator, or to introduce the adolescent into a peer group that itself is embedded in community of adults poised to ensure that talents are cultivated and where 'college-going' becomes part of everyone's identity (p. 1071).

In the absence of personal resources, or *human capital*, brokering can play an important role in helping students connect to interest-related opportunities and information. Transactional brokering is necessarily dependent on the size and quality of one's social network. More importantly for marginalized communities, having access to institutional gatekeepers is an important requirement for mobility (Stanton-Salazar, 2011). For example, a high-school student with a budding interest in engineering could greatly benefit from a social connection that allows her to 'job shadow' a practicing engineer who can provide critical information on course or college selection, or even link to an internship that can become a key gateway to later employment. The same student could easily research engineering on her own, and might have the encouragement of a parent, but would still lack the social resources to put her on a track to future upward mobility.

While such opportunities are often brokered by well-connected parents for their children, the same mechanisms can theoretically operate between non-parent adults and the students with whom they work. Therefore, the social capital of adults in after-school programs may be a critical resource for youth interest development and a primary driver of relational connections forged between students and individuals who occupy important institutional roles. Before discussing the important role of non-parent adults in this context further, it is critical that the reader have a solid understanding of what social capital is and is not, and how it functions in relation to important individual-level variables to enable youth access to resources for interest development.

Social Capital

Introduction

The term *social capital* is generally first attributed to the writings of French sociologist, Pierre Bourdieu, whose work is an extension of the conflict theories discussed in Chapter One. Defining social capital as the aggregate of resources that exist within individuals' networks, Bourdieu (1986) saw the construct as an explanatory mechanism for the reproduction of class inequality and viewed social relationships that provide access to institutionalized resources as advantageous for those in power but as an exclusionary process for those without. His classic example was that of a prestigious, members-only golf club, intended to illustrate the self-preserving aspects of social capital for the upper classes while simultaneously reinforcing social inequality; when membership is only extended to those who already meet certain criteria and not to those who might otherwise be able to gain status through the resources contained within the club's networks, outsiders are denied status-changing opportunities and the status quo remains unchanged.

Bourdieu's work ultimately gave rise to networked theories of social capital, upon which this study is based, yet it was largely overlooked during a critical period of interest in social capital theory, likely because his works were initially published only in French. Additionally, a competing theory of social capital was contemporaneously developed by Coleman (1988) in the United States, which arguably had far more influence on both theoretical and empirical research in sociology and related fields. Lacking Bourdieu's theoretical refinement, modern social capital research has suffered from a variety of conceptual and methodological concerns, with some authors arguing that the term itself is a poorly conceived metaphor (Bankston & Zhou, 2002). For example, unlike financial capital, social capital does not have a standard quantity that accumulates in a simple additive manner (Bankston & Zhou, 2002; Tzanakis, 2013), leading to inappropriate comparisons and methodologies borrowed from research on other forms of capital. Others have noted that vague or flawed definitions of the term have led to wide application without a clear understanding of mechanisms that create social capital (see Portes, 1998, or Bankston & Zhou, 2002, for a full discussion of these issues). The result is that the huge body of social capital research conducted in the past few decades is fraught with issues related to conceptualization, operationalization, and measurement. The following section will briefly explore Coleman's theory and its influence, with particular attention to issues of concern for social capital researchers, before further discussing networked theories of social capital as the basis for this work.

Coleman's Social Capital Theory

Coleman (1988) defined social capital as, "a variety of entities with two elements in common: They all consist of some aspect of social structures, and they facilitate certain action of actors…within the structure" (p. S98). He further described social capital as the development of group norms, as well as forms of communication that reinforce standards. Like Bourdieu, Coleman believed that social relationships are central elements of social capital. However, Coleman's work placed emphasis on strong familial relationships to explain successful student outcomes, while Bourdieu used the same ideas to explain the reproduction of inequality across social classes. Coleman emphasized the role of parents and the idea of *intergenerational closure*, or how well parents know the parents of their children's friends, suggesting that families play a critical role in adopting key social norms to advance a child's chance of success. The mechanisms that are seen as core aspects of community and relationship building in Coleman's theory also serve to restrict or deny access to valued resources for marginalized groups in Bourdieu's theory.

Coleman's theory has been criticized for circular reasoning due to a lack of distinction between resources and the ability to obtain them, a relationship that Bourdieu explicitly defines (Portes, 1998). However, his work has had a strong influence on the popularization of social capital research and its extension from sociology into other fields. In a review of social capital applications to education, Dika and Singh (2002) noted that nearly all of the empirical works reviewed explored social capital as norms rather than access to institutional resources, primarily due to the reliance on Coleman's theory of social capital.

A number of methodological concerns arise due to the dominance of Coleman's work in educational literature. For example, the majority of quantitative studies they reviewed used large, national datasets that were not intended to measure social capital, such as the National Educational Longitudinal Survey of 1988 (NELS:88). These data sets commonly contain measures of parent involvement in a child's school, or other proxy measures that are used to draw conclusions regarding the influence of social capital on academic variables. Referring to these common indicators of social capital used by researchers in the Coleman tradition, Dika and Singh (2002) asked, "Why and how is family social capital different from family background? Parent involvement and school engagement indicators comprise many indicators of social capital used in the studies reviewed. It has not been verified that something different from these is indeed being measured" (p. 45).

In an updated review of social capital in educational literature, Philp (2019) found that quantitative studies continued to rely heavily on methods derived from Coleman's theory, while qualitative researchers were more likely to use theoretical perspectives aligned with Bourdieu. Additionally, there was a tendency in many studies to conflate various forms of capital, such as cultural or human capital, an issue Portes (1998) noted was frequently seen in the broader sociological literature. Inconsistencies and sometimes contradictions in definitions were noted across several of the studies reviewed by Philp, possibly due to the fact that some used datasets that were not designed to measure social capital (Dika & Singh, 2002). For example, two studies (Chesters & Smith, 2015; Garrett, Antrop-González, & Vélez, 2010) operationalized youth social capital as participation in extracurricular activities, while other studies included extracurricular activities as a moderating variable for the impact of other social capital variables (such as intergenerational closure) on academic outcomes (Morris, 2016). As a whole, Philp found evidence that alternative conceptualizations of social capital are taking hold, though Coleman's influence was still clear in the reviewed literature.

As Burt (2000) noted, the various published metaphors of social capital are in agreement on the idea of social structures creating a form of capital that leads to advantage for some groups over others; they begin to diverge when operationalizing terms and mechanisms that create advantage. In models of closure (e.g., Coleman), networks create advantage when all individuals are connected, increasing access to critical information as well as reducing the risk inherent in trusting others. However, Burt (2001) has demonstrated an equally likely association with distrust in dense networks as with trust. In fact, Portes and Landolt (1996) effectively showed that such networks may worsen social divides by examining group affiliation with low-performing peers, indicating that network closure may just as equally result in disadvantage as advantage. While it is clear that social capital does not accrue in the same manner as other forms of capital, the negative consequences seen when operationalizing social capital as network closure has led some to raise the question of whether it can be considered a form of capital at all (Robison, Schmid, & Siles, 2002).

Given the numerous and sometimes contradictory conceptualizations of social capital across fields, researchers have the challenging task of recognizing these ideological distinctions in both their own and other's work. To address this issue, the next section will review network theories of social capital, a line of research that explores social capital in the tradition of Bourdieu (1986), and which will form the conceptual basis for the current study. Despite concerns over the lack of metaphorical agreement with other forms of capital, the term social capital will be utilized here, as the term itself matters less than having clearly defined constructs and posited mechanisms that can lead to testable hypotheses.

Network Theories of Social Capital

Network theories of social capital operationalize the construct of social capital as differential access to institutionalized resources through social networks, thus providing an improved understanding of the role of social capital in the reproduction of inequality. For clarity, the use of the term *social capital* in the remainder of this study can be understood as referring to a network theory of social capital to differentiate from the ideologically distinct uses of the term described above. As mentioned previously, Bourdieu's work clearly distinguishes between the resources contained within a network and the ability to obtain them. Building on this understanding, Lin (2002) put forth a network theory of the construct which defined social capital as the "resources embedded in social relations and social structure which can be mobilized when an actor wishes to increase the likelihood of success in purposive actions" (p. 24).

Lin's network theory of social capital requires that resources must both exist within a network and be available for use. That is, it is the *mobilization* of resources that ultimately results in returns to an individual, not the mere presence of resources. He suggested that social capital can be mobilized through two types of actions: instrumental and expressive. Expressive actions occur in homophilous groups, or those made up of like individuals, and result in sympathetic returns. Instrumental actions occur when an individual seeks out heterophilous groups with the aim of accessing a resource and with the expected return of personally gaining more or better resources. He further argued that instrumental actions are most relevant for social mobility.

Granovetter (1977) examined the types of relationships that tend to exist within social networks and found that connections served different functions based on their typology. *Strong ties*, or relationships with kin or very close friends, were found to be critical sources of social support. Wellman and Frank (2000) demonstrated that such contacts are more likely to provide everyday as well as emergency support. These connections could help create the types of norms and collective trust that Coleman (1988) suggests can provide emotional support and encourage student success. However, close contacts tend to closely resemble the central individual in terms of their own social networks. Therefore, these typically homogeneous strong ties may be less useful in creating connections to novel resources. On the other hand, colleagues and acquaintances, or *weak ties*, may be less likely to grant access to resources based on familiarity, but are more likely to provide connections to resources not already contained within one's social network. Therefore, individuals with few weak ties will be deprived of information from more distant parts of the social network (Granovetter, 1977); incorporating Lin's work, such individuals would have a reduced ability to enact instrumental actions for social mobility.

It is the access to and control over the flow of distant information that Burt (2000) argued is a critical mechanism in creating advantage. Granovetter (1977) found that personal networks that were highly diverse (i.e., included both strong and weak ties) increased access to information related to job opportunities. Burt proposed that weak ties represent *holes* in network structure; individuals who can create bridges across structural holes are uniquely positioned to broker information flow between the people in poorly connected networks. Strong ties generally correspond with a highly dense network in which most of the members know one another. However, as described above, they can also reinforce class-based differences because they provide no mechanism for gaining access to resources not already contained within the network. Weak ties, on the other hand, are more likely to be associated with low-density networks that provide little in the way of collective norms, but act as a gatekeeper to resources in other networks (i.e., they are a bridge between networks).

Again, it is important to briefly note alternate terms and conceptualizations of social capital that have played an important role in advancing theoretical refinements, and which are frequently seen in published literature, albeit often without a full understanding of their evolution or appropriate application. Another popular American scholar, Putnam (2000), described two forms of social capital, distinguishing between *bonding* and *bridging* types. Bridging is similar to Lin’s instrumental actions and refers to networks that are comprised of different types of people, while bonding networks mostly contain similar individuals, as described by Lin’s homophilous groups. However, Putnam’s theories followed Coleman’s closure argument, suggesting that bonding social capital was an important element in the creation of group social advantage, whereas Lin suggested homphilous networks could provide individuals with forms of emotional support but could not support social mobility.

Burt (2000) further argued that following closure-based strategies would entail individuals seeking a similar group and further ‘closing ranks’ to outsiders, while a brokerage strategy supported by Lin and others, though likely more difficult, would see individuals actively working to bridge relations between dissimilar groups. From this perspective, closure can only explain social equilibrium, but brokerage enables an understanding of social mobility that, while frequently opposed by strong cultural forces, can explain why some individuals do manage to ‘climb the social ladder.’ Bottrell (2009) highlighted the fallacy inherent in the closure argument, noting that Putnam believed, “that disadvantaged communities lack social capital, giving rise to a vicious circle of low trust, weak cohesion, and high incidence of crime; further mistrust is contrasted with alternative propositions that disadvantaged communities do have social capital, but it is insufficient to counter structured socioeconomic effects or is fragmented and thus ineffectual in strengthening collective efficacy and well-being” (p. 479). For the current study, the terms bonding and bridging social capital will not be utilized, as it may be more appropriate to consider them two distinct actions undertaken by individuals based on specific needs rather than two instances of the construct of social capital. It should also be noted that Burt’s (2000) use of the term bridge as a person who spans two otherwise disconnected networks is distinct from Putnam’s usage.

Importantly, network theories allow for measurement of social capital across socio-ecological levels, as it can be considered a construct that exists at both the individual and community level. Lin (2002) suggested that people are most likely to interact with others like them, resulting in the maintenance of inequality if the network is resource-poor. Dulworth (2008) describes ideal, or *cosmopolitan*, networks as those that are large, contain connections with high power or authority, are diverse across organizational settings, and strike a balance between high-density support networks and low-density ‘bridging’ connections. Class-based differences in network structure have been well-documented, with upper-classes more likely to possess cosmopolitan networks than middle- or lower-classes (Cochran, Larner, Riley, & Henderson, 1990). For socially marginalized groups, it is then easy to imagine that greater effort would be required among individuals to bridge holes across dissimilar networks, particularly if distant networks are communally biased against the marginalized groups. In this case, it would require both a particularly entrepreneurial individual from the non-dominant group as well as a more tolerant individual from the dominant group to create a bridge. Again, the result is that some individuals can access resources for personal gain while the population as a whole is denied opportunities for mobility.

In this section, competing understandings of social capital have been reviewed along with the rationale for utilizing network theories of social capital for the basis of the current study. The structural elements of an individual's network that are hypothesized to influence social mobility have been described in addition to suggested mechanisms of resource mobilization. However, structural theory alone cannot fully explain observed social phenomena; for example, cases where otherwise well-connected individuals fail to mobilize accessible resources. To better understand why two individuals with identical network structure could experience very different outcomes, it is necessary to examine an individual-level construct known as network orientation, discussed further in the next section.

Network Orientation

Tolsdorf (1976) first identified individual differences in help-seeking beliefs that influenced one's willingness to utilize support resources, or in other words, to mobilize one's network social capital. He defined *network orientation* as, "a set of beliefs, attitudes, and expectations regarding the potential usefulness of one's social network in providing help with life problems" (p. 413). Network orientation is often used interchangeably with the term *help-seeking orientation,* which may influence help-seeking behavior (Vaux, Burda, & Stewart, 1986). As Stanton-Salazar and Spina (2000) noted, help-seeking beliefs are only one part of the multi-dimensional construct of network orientation, with norms of help-seeking, past experience with help-seeking, and perceptions of trust all suggested to influence beliefs regarding the utility of seeking help (Vaux, 1985). To emphasize the importance of social networks to this construct, the original term of network orientation will be used here.

Much of the research on network orientation has been in the fields of clinical psychology as the construct relates to mental and/or physical health outcomes. Eckenrode (1983) found that individuals with a more positive network orientation received more assistance at a neighborhood health center compared to those with a more negative orientation. Negative network orientation was found to decrease the help-seeking behaviors of mental health outpatients (Barrera & Baca, 1990), and college students (Larose, Bernier, Soucy, & Duchesne, 1999), and to mediate the inverse relationship of posttraumatic stress disorder and perceived social support (Clapp & Gayle Beck, 2009). Barrera and Baca (1990) also found that network orientation independently predicted psychological distress in outpatients. Vaux Burda, and Stewart (1986) demonstrated that individuals with more negative network orientations perceived fewer available social supports, irrespective of total network size, while Vaux and Wood (1987) further found that those with a negative network orientation were less likely to develop, maintain, and use support.

Network orientation was later combined with theories of social capital to emphasize the motivational aspects of an individual's resource mobilization (Stanton-Salazar & Spina, 2000). Notably, Stanton-Salazar and Dornbusch (1995) were among the first to apply network theories of social capital to adolescents in their research on high school students in the US of Mexican origin. Stanton-Salazar (2011) later incorporated this perspective into his framework of how *institutional agents* can empower low-status youth. These are non-parent adults who occupy positions within a stratified system and who can provide forms of social and institutional support. He employed the educational philosophies of Freire (1970) to invoke youth empowerment as a primary tool for counterstratification. In other words, Stanton-Salazar contended that institutional agents may hold the key to changing social systems that resist upward mobility of marginalized groups.

Stanton-Salazar (2011) argued that effective institutional agents possess an ‘enlightened’ network orientation; “beginning with a critical awareness that empowering another can be accomplished indirectly, through actors and resources embedded in their own social networks” (p. 1094). He further incorporates the work of Lin and Burt discussed above to explore how agents can strategically function as bridges across structural holes to better detect important resources that can be used to support youth, arguing that positive network orientations drive institutional agents to either become bridges or to build close relationships with those who act as bridges. By possessing an awareness of the value of social networks and by serving in key institutional roles, Stanton-Salazar argues that institutional agents can become *empowerment agents* who support meaningful youth development as well as overall social change; students who are empowered by institutional agents are suggested to embrace a critical consciousness necessary for societal transformation.

Empirically, most research on institutional agents has focused on college students from minority or low-income backgrounds. Dowd, Pak, and Bensimon (2013) found that institutional agents were instrumental in supporting successful transitions to campus life for first-year college students from low-status groups, while others have explored the ways in which institutional agents support racial minorities in college (Museus & Neville, 2012) or barriers to connecting with institutional agents (Stebleton & Aleixo, 2015). Finally, according to Stanton-Salazar (2011), although empowerment agents do exist in reality, they are rare; hence, the continued stratification of society and the celebration of success stories when a low-status youth 'overcomes the odds.' As a guiding framework, Stanton-Salazar's work provides an improved understanding of not only the possible mechanisms that contribute to poor outcomes for at-risk youth, but also provides a theory of change for the development of interventions. The final section of this review will examine possibilities for interventions and continued areas of research.

Social Capital Interventions

By now, it should be clear that social capital is a construct that exists at both the individual and communal level. Network theories of social capital allow for improved measurement and analysis of social resources and provide explanatory mechanisms for varied group-level outcomes. From a purely societal perspective, it can be argued that network configurations create "emergent differences in youth development, academic achievement, and life chances [that] are core constructions of a society characterized by post-industrial capitalism, persistent racial segregation and institutionalized racism, and reformed yet persistent patriarchy" (Stanton-Salazar, 2011, p. 1074). However, without an understanding of important individual-level variables, specifically network orientations, it is impossible to understand how some individuals who face the deeply-ingrained social biases mentioned above can overcome these barriers to academic and economic achievement. In these cases, individuals may, through a variety of personal factors such as grit, resilience, and a likely serendipitous history of positive help-seeking experiences, develop positive network orientations that combine with more cosmopolitan social networks to support success and counteract prevailing societal forces.

Understanding the complex mechanisms at play is only useful for practitioners who seek to make real-world changes for their students if the constructs are changeable- that is, if network orientation is a fixed personal characteristic, then it is not a viable target for systems improvement. Interventional studies related to social capital are scarce, as most work has continued to focus on descriptive studies that further refine theoretical understanding. Problematically, the handful of intervention studies also suffer from the methodological and ideological issues described in detail in this chapter. However, they do provide some insight into the ways in which future social capital interventions might function.

A study by Pronyk and colleagues (2008) examined if social capital could be intentionally generated among women in rural South Africa. As part of a health and micro-finance education randomized intervention, participants assigned to treatment groups committed to joining a new ‘social’ network while receiving instruction on business generation, finance, and women’s empowerment. Naturally, the requirement to join a new network resulted in increased social connections as evidenced by quantitative analysis in the study, though these connections remained two years post-intervention. Alone, this does not provide evidence that an intervention to simply increase connections can result in desired outcomes, and the authors do not demonstrate that participants have any financial or social status improvements after the program, though follow-up interviews commonly identified access to financial and business advice among the most important benefits of participation.

In another study, Schwartz and colleagues (2018) implemented a program for first-generation college students specifically designed to improve their ability to cultivate social capital resources on campus. Several variables were measured pre- and post-intervention for control and treatment groups, including network orientation and help-seeking intentions, perceptions of relationships with faculty, as well as first-year GPA. At post-test, program participants showed more positive networks orientations, more positive attitudes towards seeking support, and improved perceptions of relationships with instructors. Notably, participants had significantly higher first-year GPAs compared to the control group, suggesting that improving attitudes and beliefs regarding help-seeking can translate into academic gains.

While each of these studies provides insight into some of the mechanisms suggested to lead to social capital gains, no studies were identified that examined interventions to change both attitudes and beliefs as well as network composition. Based on the works reviewed in this chapter, it can logically be assumed that increases in either would be beneficial; increasing the quality and number of connections could increase the likelihood of having access to a needed resource, while increasing network orientation could improve mobilization of resources already present. Conversely, it would follow that having both a small, resource-poor network and a negative network orientation could be particularly damaging to an individual’s chances of success. While interventions in social capital research are still in their infancy with many remaining questions, it is promising that the limited empirical evidence appears to be congruent with the preferred theoretical frameworks of Lin (2001), Burt (2000), and Stanton-Salazar (2011), discussed above.

Conclusion

The current study relies heavily on Stanton-Salazar's (2011) social capital framework for the study of institutional agents to begin to more deeply explore the attitudes, beliefs, and social networks of after-school staff, yet differs in important ways. While the Freirean principles of empowerment and counterstratification are foundational to his work, Stanton-Salazar's model implies that an adult's ability to become such an enlightened institutional agent is dependent on the size and quality of his or her social network, as well as on the adult's network orientation. Stanton-Salazar (2001) suggested that negative network orientations are a form of internalized oppression among marginalized groups. However, he only briefly notes that such internalized oppression is likely to exist in adults who themselves are or were a part of marginalized and oppressed groups. This presents a conflict, as many adults working in after-school programs are reflective of the communities they serve (Birmingham et al., 2005), yet are implicated as the primary change agents for creating empowering network orientations in low-status youth (Stanton-Salazar, 2011). Even if these adults occupy positions as institutional agents, negative network orientations may still result in low resource mobilization and reduced youth support.

In recognition of this conflict, the present research makes no assumptions about the status of adults working within after-school programs, nor about their actions in terms of empowerment and counterstratification. The mechanisms for resource mobilization put forth by Stanton-Salazar (2011), large and diverse social networks and positive network orientations, are instead combined with those suggested by Ching and colleagues (2015), where student interest, close relationships with adults in after-school programs, and adult knowledge of opportunity are necessary precursors to resource mobilization. In this chapter, I reviewed the literature on interest as a mechanism for engaging youth who might otherwise disengage from traditional learning institutions and demonstrated that interest may be an important precursor to youth pursuing the types of institutional relationships that can support improved vocational outcomes and economic success. Further, the literature reviewed here shows how after-school programs play an important role in supporting the exploration and development of youth interests, and that staff knowledge of student interests can promote relational connections between students and other adults.

It remains an open question as to how these complex interactions of social forces and individual beliefs and attitudes fully impact youth opportunities for success, as research in this area is still limited. Thus, this study is intended to begin to explore how adult network structure and orientation influence resource mobilization in after-school programs for at-risk youth. Ultimately, improved understanding of these processes can lead to interventions to support adult transitions from institutional agent to empowerment agent in after-school programs to increase youth interest development, academic engagement, and social mobility.

The next chapter will describe the methods used to answer the driving research questions for the present study:

1) What is the relationship between non-parent adult social network characteristics, network orientation, and social capital mobilization?
    a. Does non-parent adult network social capital predict social capital mobilization?
    b. Does non-parent adult network orientation predict social capital mobilization?

2) How and why do non-parent adults in after-school programs support youth interest development using social network connections, if at all?

CHAPTER THREE: METHODS

Introduction

The purpose of this study was to explore the relationship between network social capital, network orientation, and social capital mobilization in a sample of non-parent adults working with youth in after-school settings, to better understand how adults might use their network connections in support of youth interest and personal development. A mixed-methods study design was employed in a two-phase approach incorporating both quantitative and qualitative data collection and analysis.

Research Questions

The two research questions that guided this study were focused on non-parent adults working with youth in after-school settings. A research hypothesis for the quantitative research question was developed based on the review of literature conducted in the previous chapter and the relationships between variables suggested by existing theoretical frameworks (i.e., Stanton-Salazar, 2011; Lin, 2001).

1) Do network orientation, social network size, and social network prestige predict social capital mobilization?

    H1: Network orientation, network size, and average network prestige score significantly predict social capital mobilization, as measured by a dichotomous outcome variable.

2) How and why do non-parent adults in after-school programs support youth interest development using social network connections, if at all?

Research Design

This study used a mixed-methods approach to examine social network characteristics, attitudes, and resource mobilization in adults working in after-school settings. Mixed-methods research combines both quantitative and qualitative approaches to data collection and analysis with the goal of better understanding of the problem of study (Creswell & Plano Clark, 2006). Creswell and Plano Clark (2006) describe four major types of mixed-methods designs, including triangulation, explanatory, embedded, and exploratory. Here, an explanatory sequential approach was employed where quantitative data collection was followed by qualitative data collection, with the goal of using qualitative data to better understand quantitative results. This is a two-phase design beginning with quantitative data collection, followed by qualitative data collection. The quantitative data collection can then be used to guide purposeful sampling of the qualitative phase (Creswell, Plano Clark, Gutmann, & Hanson, 2003). Figure 1 shows the phases of the research design used for the current study.

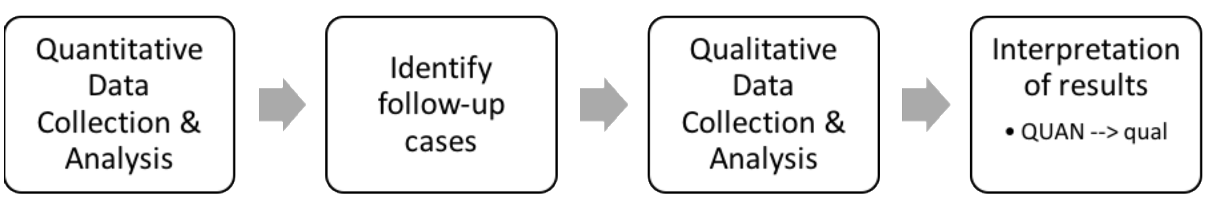

Figure 1. *Phases of the research design. Adapted from Creswell and Plano Clark (2006).*

Quantitative data consisted of a cross-sectional survey administered to a convenience sample of educators working in programs serving at-risk youth. Programs were selected for participation if they were located within the county school district boundaries and served a majority of students from Title 1 schools, a federal designation for schools with a high percentage of low-income families. Additionally, programs were all non-fee based, did not focus on a particular subpopulation or interest (i.e., girls only, arts programming only, etc.), and included students ages 13 and up. The average number of students at each program ranged from approximately 20 to over 200.

Following survey participation, stratified purposive sampling was used to identify participants for follow-up interviews. This technique involves the identification of subgroups within the sample population and selecting participants from each subgroup to compare and contrast salient characteristics across the groups (Graff, 2013). Further, this technique helps to capture major variations in the overall sample that may emerge during the quantitative analysis by selecting individuals who represent average as well as atypical cases (Palinkas et al., 2015).

Based on survey responses, participants were categorized as *Non-Mobilizers* if they indicated no mobilization of resources in the past six months; as *Mobilizers* if they indicated 1 to 9 resources mobilized in the last six months; and *Super-Mobilizers* if they indicated mobilizing 10 or more resources in the past six months. Within each group, participants were purposely selected in an attempt to gather perspectives from a variety of program sizes and formats. If the participant did not agree to the interview or no response was obtained after several attempts, another similar participant from the same group was contacted. Ultimately, six participants were interviewed, including 2 *Non-Mobilizers*, 2 *Mobilizers*, and 2 *Super-Mobilizers*.

Instrumentation

The survey used in this study included a 30-item position-generator, a limited yet representative list of occupations that serve as an indicator of the resources embedded in a social network (Lin & Dumin, 1986). The development of the position-generator is discussed further, below.

Position-Generator Instruments for Social Capital Measurement

In light of the concerns discussed in Chapter Two regarding the conceptualization and measurement of social capital, this study used an instrument specifically designed to capture aspects of an individual's social network; a 30-item position-generator, a limited yet representative list of occupations that serve as an indicator of the resources embedded in a social network (Lin & Dumin, 1986). Position-generators should include a range of occupations that are contextually relevant for a given study, are commonly recognized by the population under study, and represent a range of occupational statuses (Lin & Erickson, 2008). Position generators are most appropriate for studies examining differential access to resources across social classes (Van der Gaag, Snijders, & Flap, 2012) and have an advantage over other network analysis approaches in that they are quick and easy to administer. Position-generators also capture the idea that having multiple high-ranking positions within one's network is not necessary for gains; a single connection can provide the same access without redundancy (Lin, 1999).

The position generator developed for this study (see Appendix A) was constructed using guidelines suggested by Lin and Erickson (2008) that indicate the occupations represented should span very high to very low occupational status rankings, and that they should be occupations that are relatively well-known with widely understood titles. The 30 positions listed in the current study all had greater than 50,000 individuals on the 2010-2012 American Community Survey (ACS), which is above the threshold suggested by Erickson (2008) of 20,000. The status scores of each listed occupation are based on an established index of occupational prestige; in the present study, the Nam-Powers-Boyd occupational scale (NPB; Boyd & Nam, 2015) was selected for several reasons. For one, it is based on the American Community Surveys of 2010-2012, conducted by the U. S. Census Bureau, making it one of the more recent indices available. Duncan's (1961) occupational prestige scale is often used in social capital research when issues of power across social stratification are investigated. However, for the present study, the focus is on linkages to resources held across institutions that may afford increased educational opportunity. Boyd and Nam (2015) noted that the NPB scale is preferred in studies where the goal is to identify "prospects for life chances" (p. 3).

From the position generator, total number of contacts and the average prestige of known contacts was derived, explained in further detail below. The survey also included the *Network Orientation Scale* (also discussed further below) and basic demographic questions.

Dependent Variable

A single item was included on the survey to assess the mobilization of social capital. After filling out the position-generator, participants were asked to indicate which contacts (if any) they had asked for information or resources to support a student(s) in the past 6 months. Based on the high number of respondents who indicated not using any resources, participants were sorted into two groups: *Mobilizers* were those who asked at least one contact for a resource, while *Non-Mobilizers* did not tap contacts for resources.

Independent Variables

Three independent variables were used as predictors in a logistic regression. As indicators of social capital, social network volume and social network quality were calculated using the position generator. The *Network Orientation Scale* was used to assess individual attitudes towards help-seeking. Each measure is further described below.

Social Network Volume: Total Contacts

From responses to the 30-item position-generator instrument, the total number of different positions to which an individual was connected served as an indicator of network volume. This measure is generally considered to be an indicator of overall network size and will hereafter be referred to as *Total Contacts*.

Social Network Quality: Average Prestige

The second variable calculated from the position-generator was the average prestige of known positions, a proxy for the overall quality of the network. The Nam-Powers-Boyd occupational scale (NPB; Boyd & Nam, 2015) was used to assign a prestige score to each occupation. The *Average Prestige* of all known occupations was calculated for each participant.

Network Orientation Scale

The *Network Orientation Scale* (*NOS*) developed by Vaux (1985) was used to assess adult network orientation. This is a 20-item instrument is intended to capture the three aspects described by (Tolsdorf, 1976) as fundamental to one's network orientation: independence, help-seeking history, and trust. Vaux, Burda, and Stewart (1986) assessed reliability and validity of the scale, with the *NOS* demonstrating reasonable internal consistency reliability across multiple ethnicities, ages, and gender (Cronbach's alphas ranged from .60 to .88 with a mean of .74). Other researchers have found similar results (i.e., Clapp & Beck, 2009; Larose, Bernier, Soucy, & Duchesne, 1999). Validity studies have demonstrated associations between negative network orientation and personality characteristics, such as low trust, low affiliation, and limited network resources for social support (Vaux et al., 1986; Barrera & Baca, 1990).

Participants responded to items on the *NOS* using a scale that ranged from strongly agree (1) to strongly disagree (4), and included questions such as, "Even if I need something, I would hesitate to borrow it from someone," "In the past, friends have really helped me out when I've had a problem," and "If you confide in other people, they will take advantage of vou." Although Vaux (1985) published an initial factor structure for the scale that roughly aligned with the three aspects described by Tolsdorf, strong psychometric evidence of validity is limited. Other researchers have used the scale in its entirety, summing all responses to the 20 items to create a measure of negative network orientation (Clapp & Gayle Beck, 2009; Vaux et al., 1986; Wallace & Vaux, 1993). Thus, for the present study, the same approach was taken: positive items were reverse scored and summed as a measure of negative network orientation. Higher scores, out of a total possible of 80, indicated a more negative network orientation.

Demographic Variables

At the end of the survey, participants were asked questions to collect basic demographic data on the sample. Nominal variables included *Gender* and *Race/ethnicity*. Ordinal variables were *Length of Time at Organization* and *Highest Level of Education*. Finally, *Age* was included as a continuous variable.

Procedures

Approval to conduct this research was obtained by the university's Institutional Review Board (see Appendix B for approval letter). Following approval, data were collected in two phases, described further below.

Phase 1: Quantitative

Executive Directors or Program Directors at each site agreed to the administration of paper-based surveys during a staff meeting or other time when programs would not be disrupted. Not all staff were present at each meeting, so when possible, program leadership sent the survey electronically to absent staff members. Surveys took approximately 10 minutes to complete and response rates to the survey at each program location varied from 50%-100%.

Phase 2: Qualitative

Selection for interview participants was conducted following completion of quantitative data collection. The frequency distribution of responses on the resource mobilization question was clearly divided into three groups; those who indicated no mobilization, with two other clusters within the value range of 1 to 19. Based on the distributions of positive values which grouped around the 1-3 values and again towards the higher end of the range, a decision was made to split these participants into groups at the approximate mid-point, resulting in the three categories of mobilizers described above: *Non-Mobilizers, Mobilizers,* and *Super-Mobilizers*.

Mobilizers were individuals who indicated mobilizing 1-9 resources, whereas *Super-Mobilizers* indicated 10-19 resources mobilized. Therefore, participants who met the inclusion criteria for this phase and who agreed to be contacted for follow-up were selected for 20 to 30-minute semi-structured interviews. The interview protocol used can be found in Appendix C. Interviews were audio recorded with permission and transcribed for further analysis.

Analysis

Phase 1: Quantitative

As described above, the *Network Orientation Scale* (*NOS*) and the two indices of social capital, *Total Contacts* and *Average Prestige*, were used as predictor variables in a logistic regression on the dichotomous outcome of social capital mobilization. Although linear regression was initially planned for this study, the responses unexpectedly revealed a highly zero-inflated sample on the dependent variable of social capital mobilization. Further exploration of the data found that they were also not a good match for the use of statistical techniques better suited for zero-inflated samples, such as Poisson regression. Thus, the decision was made to reduce the variable into two categories, one for those who indicated resource mobilization and one for those who did not. Although important differences may be lost by collapsing the responses in this manner, the qualitative analysis allowed for more in-depth exploration of possible differences across the mobilizers group by splitting the mobilizers into two categories (*Mobilizers* and *Super-Mobilizers*) as described above.

After careful review of the data, three cases were removed from analysis due to the presence of outlier values. Additionally, initial runs of the logistic regression model resulted in extreme values for odds ratios. Further data inspection revealed that two categories in the variables *Time at Organization* and *Education Level* had extremely small group *n*'s, resulting in the erroneous results. To correct for this problem, the values from the small group sizes were removed, resulting in participants with *Less than a high school diploma* and *Fewer than 6 months at organization* being dropped from the analysis. The remaining sample included 41 cases.

A power analysis was conducted using G*Power 3.1.9 (Faul, Erdfelder, Buchner, & Lang, 2013) to determine a sufficient sample size for a logistic regression, following the guidelines established by (Hsieh, Bloch, & Larsen, 1998). Using an alpha of 0.05, a power of 0.80, an effect size of .2 and a two-tailed test with 6 predictors, the estimated minimum sample size to achieve statistical power was 42. Because the reduced sample included only 41 cases, the power analysis was revised to examine the minimum sample size required to achieve sufficient power at an alpha level of .10, resulting in an *n* of 33.

Assumptions for logistic regression were also checked prior to final analysis. Although a normal distribution is not a requirement for logistic regression, continuous independent variables must be linearly related to the log odds of the dependent variable. The continuous variable *Age* did not meet this assumption and was excluded from the analysis. Finally, the inclusion of *Race* and *Ethnicity* variables in the model was problematic; they showed very strong correlation with each other using the Phi-coefficient ($\emptyset$= .698, p= .000) which presented a concern for multicollinearity in the regression model. Both variables also had some group categories with extremely small *n* values resulting in uninterpretable odds ratios as discussed above. They were not included in the final model due to these concerns.

None of the continuous predictor variables showed significant correlations (see Table 1). The negative correlations between the network orientation score and total contacts as well as average prestige are due to the fact that the scale measures negative network orientation (i.e., higher scores indicate a more negative propensity towards seeking help from one's social network).

Table 1. *Pearson Correlations Among and Descriptive Statistics for Continuous Variables*

	M (*SD*)	NOS	TC	AP	Age
NOS	43.48 (6.37)		-.117	-.169	.122
Total Contacts (TC)	14.58 (7.52)			.060	-.140
Ave. Prestige (AP)	60.68 (6.96)				.147
Age	37.04 (12.43)				

Note. None of the correlations were statistically significant at the p=.05 level.

Phase 2: Qualitative

The transcribed interviews were presented to interview participants to review for accuracy as a means of *member checking,* a qualitative technique that Lincoln & Guba (1985) describe as a crucial mechanism for ensuring validity. Of the six participants, five provided a response to the member check. All participants agreed that their transcribed responses accurately reflected their intent, although one participant asked to add additional commentary to further clarify a particular response. Following this correction, transcripts were analyzed following established guidelines for thematic analysis as proposed by Braun and Clark (2006). Their six-step framework includes the following:

1) Become familiar with data;
2) Generate initial codes;
3) Search for themes;
4) Review themes;
5) Define themes;
6) Write-up.

Thematic analysis is recognized as being a highly flexible tool for qualitative research and may be used following an inductive or deductive approach (Braun & Clark, 2006). Here, a deductive approach, in which the researcher is guided by some theoretical rationale or question, was used to code data for evidence of adult social resource mobilization in support of student interest development, as explicated in the second research question for this study. In keeping with the mixed-methods design of this study, the qualitative analysis was further used to help triangulate findings from quantitative analysis. This process also followed the 6-steps of thematic analysis with a deductive approach, using the theoretical aspects of the quantitative model to guide coding and thematic organization of qualitative data. Finally, because significant portions of the transcripts were not adequately captured by the first two rounds of thematic analysis, a final round was conducted using a more open, inductive approach. Braun and Clark (2006) explain that inductive thematic analysis is “a process of coding the data without trying to fit it into a pre-existing frame, or the researcher’s analytic preconceptions” (p. 12). Thus, the remaining data were coded and organized into emergent themes that were not guided by prior theory.

Summary

This chapter provided a detailed description of study design, sampling and data collection methods, and data analysis. Chapter Four reviews additional details and descriptive statistics for the study sample and presents the results of both quantitative and qualitative data analysis.

CHAPTER FOUR: RESULTS & DISCUSSION

Introduction

In this chapter, I present the results of data analysis described in Chapter 3. First, descriptive statistics for the study sample are presented for both survey and interview participants. The results of quantitative analysis are presented first, followed by discussion of the findings. Finally, qualitative results are presented in a narrative format, with findings discussed in conjunction with relevant literature.

Descriptive Statistics

Survey participants were adults over the age of 18 employed with 11 after-school programs operating in low-income communities in a mid-sized, Southern metropolitan city. Only those staff who had regular interactions with students ages 13 and older for a majority of their work hours were included in the survey sample, and participants had to have been working with their organization for a minimum of three months. Descriptive statistics for the 50 participants who completed the survey are included in Table 2.

Table 2. *Demographics of Survey Respondents*

Characteristic	***M***	***SD***
Age in years (*n*=48)	37.00	12.3
Characteristic	**n**	**%**
Gender (*n*=50)		
Male	22	44
Female	28	56
Race/Ethnicity (*n*=50)		
Black or African American	25	50
White	17	34
American Indian or Native Alaskan	1	2
Other	7	14
Hispanic or Latino (*n*=49)	15	31
Time at Organization (*n*=50)		
< 6 months	4	8
> 6 months but < 1 year	8	16
> 1 year but < 3 years	12	24
> 3 years but < 5 years	11	22
> 5 years	15	30
Highest Level of Education (*n*=50)		
Some high school	2	4
High school diploma or GED	9	18
Associate degree	6	12
Bachelor degree	21	42
Master degree	9	18
Doctoral or other terminal degree	3	6

As mentioned in Chapter 3, interview participants were selected based on their social capital resource mobilization as captured on their surveys. *Non-Mobilizers* were those who did not indicate contacting any individuals on behalf of students; *Mobilizers* contacted 1-9 individuals, and *Super-Mobilizers* contacted 10 or more individuals. Two individuals from each group were interviewed. Table 3 describes the demographic characteristics of each adult, identified by pseudonym. To maintain participant confidentiality, they are not listed along with their program information. However, the size of programs represented varied from a low of approximately 10 students a day to nearly 200. Two programs included some focused content-area instruction (for example, STEM programs or arts education), though both incorporated this programming into a more general extracurricular schedule, making them all representative of multipurpose after-school programs. All programs were non-fee based and served either middle school, high school, or both.

Table 3. *Demographics of Interview Participants*

Name	Age	Gender	Race/Ethnicity	Time at Org.	Highest Ed. Level	Resource Mobilization (# of contacts)
Allison	32	F	White/Hispanic	1-3 yrs	Master	0
Jade	32	F	Black/Hispanic	5 yrs or more	Bachelor	0
Stacy	27	F	White/Non-Hispanic	6mo.-1yr	Bachelor	2
Sierra	27	F	Black/Non-Hispanic	3-5 yrs	Associate	4
James	23	M	Black/Non-Hispanic	1-3 yrs	High School	11
Nikki	36	F	Black/Non-Hispanic	5 yrs or more	Doctorate	19

Note. All participants are identified by pseudonyms.

Quantitative Results

1) Research Question 1: Do network orientation, social network size, and social network prestige predict social capital mobilization?

H1: Network orientation, network size, and average network prestige score will significantly predict (at the .10 level) social capital mobilization, as measured by a dichotomous outcome variable (resource mobilization).

A logistic regression was selected with *Resource Mobilization* as the dependent variable as described in the previous chapter. A participant was coded 1 if they indicated that any contacts were used to obtain resources for a student in the past 6 months and coded 0 if none were indicated. As described in Chapter 3, the primary predictors were *Total Contacts, Average Prestige*, and *Network Orientation Score*. A baseline model was created with demographic control variables and the three predictor variables were added in a second step. The results of each step are described below.

The first part of the model (see Table 4) with demographic variables versus a model with intercept only was statistically significant, χ^2 (8, N = 41) = 19.469, p =.013. The model was able correctly to classify 79% of those who did not mobilize any contacts and 82% of those who did, for an overall success rate of 80.5%. *Time at organization*, specifically *5 years or more,* was associated with reduced odds of mobilization but by a very small factor of .028. Odds ratios of less than one are not easily interpretable but indicate that the comparison group of *Time at organization* of *6months-1year* was significantly more likely to mobilize resources than those in the *5 years or more* group. However, in terms of probability, this translates into the reference group (*Time at Org* of *6months-1year*) as having less than a 3% greater chance of mobilizing resources versus the 5-year group, indicating that this finding has little practical significance.

Table 4. *Logistic Regression Results for Model with Categorical Variables Only*

Predictor	*B*	Wald χ^2	*p*	Odds Ratio
Gender	-1.514	1.912	.167	.220
Time at Org (6mo-1yr)				
1-3 years	-.590	.204	.651	.554
3-5 years	1.142	.596	.440	3.131
5 years or more	-3.562	4.985	.026**	.028
Ed Level (High School)				
Associate's	1.359	.500	.479	3.893
Bachelor's	-.565	.144	.704	.568
Master's	-2.677	2.551	.110	.069
Doctorate	1.259	.400	.527	3.523

Note. **significant at the $p \leq .05$ level.

The next step (Table 5) added the three variables of primary interest, network orientation score, total contacts, and average prestige of contacts. This model was statistically significant, χ^2 (11, N= 41) = 26.684, p =.005. Classification improved for the *Mobilizers* group, to 86.4%, for an overall classification of 83% as compared to the model with only demographic variables. *Total Contacts* was significantly associated with the odds of mobilizing a resource at a factor of 1.173. Said differently, for every additional person in a respondents' social network there is an approximately 17% increase in the likelihood of mobilizing a resource on behalf of a student.

Table 5. *Logistic Regression Results for Model with Categorical and Continuous Predictors*

Predictor	*B*	Wald χ 2	*p*	Odds Ratio
Gender	-.233	2.799	.095*	.107
Time at Org (6mo-1yr)				
1-3 years	-1.764	.850	.356	.171
3-5 years	.196	.012	.912	1.216
5 years or more	-5.882	6.054	.014**	.003
Ed Level (High School)				
Associate's	2.818	.963	.327	16.746
Bachelor's	-.236	.021	.885	.790
Master's	-2.671	2.232	.135	.069
Doctorate	.188	.008	.929	1.206
Network Orientation	-.072	.518	.472	.930
Total Contacts	.159	3.703	.054*	1.173
Ave. Prestige	-.114	.957	.328	.892

Note. *significant at $p \leq .10$; **significant at $p \leq .05$

Again, although *Time at Organization* of *5 years or more* was statistically significant, the extremely small odds ratio suggested that this finding is of no practical significance. *Gender* approached significance at the .10 level for the second block, but the odds ratio of less than 1 indicates that females, as compared to males, were only about 11% less likely to mobilize resources within social networks. The barely significant *p* value combined with an extremely large 90% CI (1.03, 84.42) for *Gender* suggests low confidence in both the statistical and practical significance of this result. Further, when rerunning the model without non-significant indicators, *Gender* was no longer a significant predictor. This may indicate some interaction effects with one ore more of the other non-significant predictors. Given the low confidence in *Gender* as an important variable in this model, it was excluded from the final regression run, which only included *Time at Organization* and *Total Contacts.* The final model is shown in Table 6. In the final run, *Total Contacts* remained a significant predictor with an approximately 15% greater likelihood of mobilizing a resource for each additional individual in one's social network. *Time at Organization* of *5 years or more,* while again significantly different from the reference group, the odds ratio suggests only a 5% smaller chance of mobilization compared to the reference group.

Table 5. *Logistic Regression Results for Reduced Model*

Predictor	*B*	Wald χ 2	*p*	Odds Ratio
Time at Org (6mo-1yr)				
1-3 years	-.484	.209	.648	.617
3-5 years	.474	.176	.675	1.606
5 years or more	-2.982	5.255	.022*	.051
Total Contacts	.138	4.192	.041*	1.148

Note. * significant at $p \leq .05$

Quantitative Discussion

From the logistic regression model, only *Total Contacts* was determined to be both a statistically and practically significant predictor of resource mobilization. Dulworth (2008) referenced ideal networks as those that are large and contain diverse connections with high power or authority, suggesting that such networks contain the requisite resources for social mobility. The present study supports the idea that larger networks are more amenable to resource mobilization, most likely as a matter of probability: the more people that exist within one's network, the greater the odds are that a resource is available when it becomes needed, thus leading to a greater likelihood of mobilization.

However, contrary to the argument laid out in Chapter 2 and to Dulworth's ideal network, *Average Prestige* was not a significant predictor of resource mobilization. In fact, the average prestige scores for both the *Mobilizers* and *Non-Mobilizers* were nearly identical, despite having significant differences in network size (see Table 6). Further, *Average Prestige* scores did not show an association with either age or level of education as one might anticipate, with older or more educated individuals having a longer time period over which to meet individuals in higher prestige occupations or have greater institutional exposures to such individuals. This suggests that, for connecting youth with resources held by adults in various professions or occupations, simply knowing more people in more occupations drives mobilization. It may also suggest that student interests are well-diversified and span the continuum of the low and high prestige occupations listed on the position-generator. However, the mean difference between the *Average Prestige* score of the highest known position minus the highest accessed position for the *Mobilizers* group was only 4.8. This compares to an average difference of the lowest known and lowest accessed prestige scores of 15.66 for *Non-Mobilizers*, indicating that adults who did mobilize resources were more likely to do so through individuals with higher occupational prestige.

Table 6. *Means and Standard Deviations for Key Study Variables Grouped by Outcome*

Variable	**Mobilized** *M* (SD)	**Did Not Mobilize** *M* (SD)
Network Orientation	43.05 (6.45)	44.68 (5.82)

Total Contacts	16.41 (5.95)	13.05 (8.84)
Average Prestige	60.35 (4.40)	60.68 (5.55)

Network orientation, or the tendency of an individual to mobilize resources within their social network, also failed to predict resource mobilization in this study. The *Non-Mobilizers* had a slightly higher (more negative) network orientation than *Mobilizers*, suggesting *Non-Mobilizers* held views that would make them less likely to ask for support from social networks; however, the group differences did not reach a level of statistical significance. Although Stanton-Salazar's (2011) theoretical model of institutional agents proposed that network orientation of adults should predict resource mobilization, the current analysis was unable to show a link between these two constructs. There are several possible explanations for this finding. First, network orientation is suggested to be a multi-faceted construct consisting of trust, advisability, and help-seeking history (Vaux, 1985). However, psychometric research on this construct is limited (e.g., Vaux, 1985; Vaux et al., 1986) with other researchers calling for additional analysis of the factor structure of network orientation to support its application (Clapp & Gayle Beck, 2009). It is possible that the instrument used as a full scale failed to capture the nuances of the multiple dimensions suggested to contribute to overall network orientation. Further, the small sample size of this study meant that factor analysis of the items included on the *Network Orientation Scale* was unlikely to produce valid or reliable results. Future studies should address the psychometric validity of the *NOS* to support improved models.

The responses of interview participants shed valuable insight into some of the unexpected findings that resulted from quantitative analysis. In particular, qualitative analysis helped to explain the lack of influence network orientation had in the logistic regression while also supporting other elements of the proposed theoretical model for this study. The next section reviews the qualitative analysis of this mixed-methods research in a narrative format, integrating both results and discussion.

Qualitative Results and Discussion

As described in Chapter 3, thematic analysis was used to analyze qualitative data in several phases. First, interview transcripts were reviewed with a deductive approach, coding explicitly with the second research question in mind.

Research Question 2: How do non-parent adults in after-school programs support youth interest development using social network connections, if at all?

The ways in which adults used social network connections were explored using the conceptual framework of brokering and interest as described by Ching and colleagues (2016), resulting in rich descriptions of the actions and antecedents of brokering as they related to student interest. Following this initial round of coding, interviews were further explored to help triangulate quantitative results and to provide more insight into unexpected findings. Interviews were coded for evidence of beliefs and attitudes towards social support, guided by theoretical understandings of network orientation (i.e., Stanton-Salazar, 2011). As suggested by Braun and Clark (2006), taking a deductive approach with research questions and theory guiding the coding produced a detailed description of these specific aspects of the data, rather than the data set as a whole. Consequently, a large amount of data remained that was not accurately represented by the themes developed through deductive thematic analysis. Therefore, a final round of coding explored data with an inductive approach, allowing themes to emerge from the interviews. As part of a mixed-methods explanatory sequential approach, the qualitative analysis provided an opportunity to further explore quantitative results.

The qualitative analysis revealed that adults frequently acted as learning brokers for youth, often driven by student interest, and supported by strong adult-youth relationships. Exposure to a wide variety of opportunities as a mechanism to support student interest was an unexpected theme that emerged from interviews. Network orientation factors also emerged from the analysis, shedding light onto the previously discussed quantitative findings. Differences in the use of social networks to support brokering efforts between mobilizers and non-mobilizers were explained by participant discussion of organizational supports as a primary influence on the need to mobilize resources via social networks. The following sections explore each of the major themes that emerged through analysis, along with relevant literature to support findings.

Brokering

All interviewees described acting as learning brokers based on student interests. Recall that Barron (2006) describes a learning broker as one who "seeks learning opportunities for [a] child by networking, searching the Internet, talking to other parents, and using other sources of information" (p. 64). Knutson, Crowley, Russell, and Steiner (2011) further delineate forms of brokering into logistical, financial, transactional, and sourcing/vetting actions. Logistical brokering includes actions such as transportation to a site or program registration; financial brokering provides monetary resources for student support, transactional may include asking personal connections for advice, suggestions, and support; and sourcing/vetting brokering includes actions such as searching online for appropriate programs or opportunities. With the exception of financial brokering, all types of brokering were mentioned in the interviews. Table 7 provides a breakdown of each category with participant statements.

In their conceptual model of brokering, Ching and colleagues (2016) suggested that strong adult-youth relationships are a necessary precursor to brokering practices as they allow adults to know youth interests and contribute to youth trust in adults. Knowing about both potential opportunities and students' interests are requirements for adults to bridge connections for future learning. This model was supported by the findings of this study, with evidence that both strong adult-youth relationships and student interests help drive brokering actions. However, findings also revealed that adults frequently took a proactive role in supporting the development of student interests by providing exposure to new opportunities to spark interest across a wide range of students. These themes are discussed below as antecedents of adult brokering behavior.

Table 7. *Participant Descriptions of Brokering by Category*

Transactional	Logistical	Sourcing/Vetting
I'll get [an adult's] number and just invite them to come meet the kids.	We'll go together to the job shadow with a professional and see what a day is like.	I'll go online, search up different programs. They have programs for literally everything.
If I'm connecting [a student] with a career or opportunity outside of us, that's a little more handled in a facilitated way between the youth and outside person.	If I take them out to what they are interested in, it gives them a chance to say, "This is what I want to do."	I would try to find out how to go about it, or certain activities. If anything, I would talk to our director, see if we could make it a trip.
I might contact my friends because the friends that I have work in different occupations, so for example they might be an entrepreneur. I would be able to lean on them to come out and do something with the kids.	First, I have to learn exactly what it is that they're looking for. Once I can find that then I need to train a counselor. Typically, it's not the person it's just how to get the resource to the person. Just making sure that I can pull every ounce of information.	Recently there was a small event that we had where the kids would go workout at a gym. And I met this guy whose daughter is into martial arts and types of karate- I wanted to bring the opportunity to our kids.
If we had a person, I would reach out to them and either work on- if more kids had that interest- bring[ing] in a person to speak to more youth. If just one [was interested], we'd try to set up a time afterschool for person to come talk with the student. We could work to set up a shadow or something.	The kids will try stuff because we go with them. It's more than letting them know what's available. We are able to bridge the gap and take them there, meet them there, experience it with them.	
[If] students wanted to do dance classes, I've asked dance instructors, "Do you know people who would be interested in volunteering?" [Or I've] asked another non-profit, "How would that go?"		

Antecedents of Brokering

This section explores qualitative evidence for the importance of strong personal relationships with youth, youth interests, and valuing diverse exposures as primary drivers of brokering actions by adults.

Strong Personal Connections

Not surprisingly, given the highly social nature of most after-school programs, all participants described strong personal connections with students. Further, all adults used language that indicated a strong sense of familiarity related to their students. Youth were often described using possessive language; for example, 'my kids' or 'our youth' were common terms heard throughout the interviews. This protective stance is not unexpected given the amount of time many of the staff spend with their students. Consistent with published literature, participants provided vivid descriptions of their interactions with youth that could be considered as falling somewhere between a teacher-student and parent-child relationship (Hirsch, 2005). For example, Allison described her focus on learning while also attending to the personal interests or needs of each child, saying, "I approach students relationally- building relationships first and foremost. I meet the student where they are, try to understand what is important to them. [I ask myself], 'How can I get them to learn?'"

Other authors have emphasized the importance of relationships for the success of after-school programs, and as a mechanism for creating a home-like environment for youth (Jones & Deutsch, 2011; Rhodes, 2004; Rhodes et al., 2006). Gambone and Arbreton (1997) found that unstructured socialization time was important for facilitating these relationships, an aspect of the programs that was seen in interviews. For example, Stacy described how her team interacted with youth both in and out of instructional time: “We’ll do icebreakers, within the context of class, we’ll make small talk, get to know them. We’ll just hang out with them, watch them play games, ask them questions.” Sierra, who was also employed by the school where her program was housed, described how students typically sought her out before school: “I have one that checks in on me every morning. They walk in the office and look at our schedule boards and [ask] what we're doing today [in the after-school program].”

Interestingly, although Nikki described her official job duties as primarily administrative, she also described making time to interact with students:

> I get to personally know our students because I’m very hands on. When they’re new students, I take time to spend that one-on-one time to really get to know them and share who I am. But I also get to know them by being involved in what we have going on or showing up in spaces that are outside of the youth center. Whether that’s the school, or the neighborhood.

Sierra was similar, first describing many of her administrative job duties, but also including how she incorporates informal interaction with students into that work:

> I’m plugged in with students making sure they are moving to the right place, just checking up on them, making sure they are being respectful with teachers, talking to them about life. Sometimes, I’ll call them into the office in the middle of all that transition and just have that talk with them. That’s pretty much what I’m here for.

These informal interactions served to strengthen adult-student relationships, and also helped adults get to know the personal and academic interests of youth, described in more detail in the next section.

Youth Interests

As expected, student interest did appear to be an important motivator for adult brokering actions. Most participants indicated that strong personal relationships with students allowed them to better know youth interests, which in turn facilitated brokering. When asked what helped her connect students with opportunities, Allison replied:

> Knowing what they are interested in. Being able to make that connection [often happens in meetings with other providers] because everyone is able to communicate. It’s like, oh that’s what you do. I have a kid in my program that would benefit from that.

James indicated he was always looking for ways to connect students, saying, “If it sounds like an opportunity, first thing that comes to mind is oh, that kid. Or oh, that one.” As a *Super-Mobilizer*, James indicated that student interests were often best served off-site noting, “If I take them out to what they are interested in, it gives them a chance to say, this is what I want to do.” Mobilizer Sierra, on the other hand, was more intent on providing services on-site, noting that, “If it's something [students] really want to do, we try to make sure it's a part of the program.” However, Sierra also acknowledged the challenges of having a program that can appeal to many different students: “For a full program, I’d like to see arts, film photography, we have robotics, we have a dance club but that’s been up and down…So, all the kids can have a choice, not the same thing over and over again.”

The tension between providing numerous programs at a single site versus linking youth with other opportunities through partners has been described in other research (Akiva et al., 2017) and did appear to be a concern for interview subjects whose programs had a broad student base. For example, Allison’s program was located at a site with multiple, independent programs. She described how competition for the same pool of students played out saying, “Sometimes it feels like we are double dipping." However, she also noted new organizational mechanisms to address the issue: "We're trying to use partner meetings to coordinate our programs. We're trying to space out programs so we're not in competition [with one another]." This is in line with Akiva and colleagues' (2017) finding that many non-profit providers are reliant on the same limited pool of funds, which are typically tied to numbers of students served, forcing programs into direct competition.

However, not all interview participants seemed concerned in this regard, with some explicitly desiring better connections among providers. Jade said, "We need more ways to connect with other organizations to find out different opportunities- for all the kids, not just ours." Echoing Louw, Barbuto, and Crowley's (2017) findings that parents described possible opportunities that might interest their children as fragmented and hard to locate, Nikki expressed some frustration about learning of opportunities too late. She elaborated, saying,

> I hear all the time about things that are happening right here in the neighborhood that people know about that I have not yet heard about. They're surprised that I haven't. Sponsors are great about keeping us updated, saying, 'Hey, have you heard about this yet?' I would say we do get some emails. One of our partners, when we're included, gives us information and that's how we stay updated.

None of the participants spoke at any length about specific interests of youth, suggesting that triggered situational interest, the first stage of Hidi and Renninger's (2006) four-phase model of interest development, might be a primary focus on multi-purpose youth programs. Recall that situational interest emerges from context and often includes a strong affective component, especially if it is to make the transition from the more fleeting 'triggered' state to the next state of maintained situational interest (Hidi & Renninger, 2006). Others have found that instructor characteristics such as friendliness and approachability are more important for supporting triggered situational interest than for maintained situational interest (Linnenbrink-Garcia, Patall, & Messersmith, 2013). While this study was not designed to explore instructional relationships, the interview participants clearly had positive relationships with youth as described above. In the absence of well-developed personal interests, it may be more important to promote the antecedents of triggered situational interest for youth.

As discussed in Chapter 2, after-school staff could not be expected to possess the required expertise to support deepening student interests in all possible content areas. Thus, when brokering learning opportunities for students, after-school staff may alter their role from that of instructor or mentor to one of cheerleader, allowing a more expert individual to support interest development. If so, feelings of relatedness may continue to function to support the student via encouragement. Encouragement has more often been studied in the context of parenting and educational expectations (i.e., Gutman & McLoyd, 2000; Sewell & Shah, 1968; Steinberg, Lamborn, Dornbusch, & Darling, 1992) but it may play an important role in after-school programs that aim to expose youth to many options for development. Without adults providing encouragement, cajoling students into attending some activities or suggesting continued follow-up, youth may not avail of opportunities for a variety of motivational and affective reasons. Further, without the strong relationships developed during after-school programs, encouragement from an adult may fail to impact youth. For example, Nikki touched upon affective and relational factors of brokering:

> Most of the time our youth are just getting by…they're just not seen as the ones who are going to go off to college…Why would someone take the time to go there with them or expose them- if their time is already limited, they aren't going to reach out to the ones who don't appear to fall into that category. I think that's why our organization is so important, because of that exposure that we bring to our youth…Whether it's through

> third parties, through schools coming to share information, through connecting with people and so forth, we hear about opportunities and we are able to bring them to our kids.

As seen through Nikki's quote, the motivation for seeking information and opportunities was often not discussed in terms of a single student's interests, but rather in terms of exposing youth to a wide variety of opportunities with the hope that some of them might feel sparks of interest. Exposure to a diverse range of experiences and opportunities emerged as an unexpected theme across interviews. The importance of exposure and its relationship to triggered situational interest as described by participants is discussed further in the next section.

Exposure to Diverse Opportunities

Four of the six participants, Jade, James, Nikki, and Sierra, mentioned exposure as a facilitator of interest development, emphasizing the importance of providing a variety of options and opportunities to students. Exposure to new experiences and opportunities has been identified as a foundational element of many youth development programs (Roth & Brooks-Gunn, 2003), yet there is little research on how exposure might translate into improved outcomes for youth program participants. On the other hand, the long-term effects of chronic exposure to high-poverty neighborhoods is well-documented. For example, economic analysis conducted by Chetty, Hendren and Katz (2016) on the Moving to Opportunity (MTO) experiment, a federally-funded voucher program that offered a random subset of families living in high-poverty housing projects the chance to move to a lower-poverty area during the 1990s. Their analysis found that children who were younger than age 13 when their families took the vouchers to move to a lower-poverty area were more likely to attend college and earned significantly more than their matched counterparts in high-poverty areas. The authors found evidence to support the idea that the longer the duration of exposure to a lower-poverty area, the better the outcomes for youth.

In the current study, interview participants' statements reflect an understanding of both of these facets of exposure: as a buffer against the harmful effects of poverty as well as a mechanism to promote interest development. For example, James indicated that students often balked at new opportunities but ended up enjoying them in the end:

> Sometimes, even if the kids don't like it at first, I like to take them there. A lot of times, even if they don't like it, they end up [saying], "Can I come back?" You never know. They don't even know what they like.

Jade agreed that exposure was an important mechanism for helping students develop interests, saying, "A lot of times, [we ask someone to] come to the classroom and be a guest speaker. A lot of kids don't even know they have a passion until they hear it." Additionally, Jade was the only participant who described exposing students to new experiences as one of her key job functions. These descriptions are consistent with the idea that external support for interest development often comes from the individual's environment (Hidi & Renninger, 2006), and that after-school settings may be ideal settings to leverage the sense of group belonging and informal atmosphere to trigger interest development as discussed in Chapter 2 (Hirsch, 2011; Larson & Eccles, 2005; Larson, 2000).

On the other hand, James and Nikki, both *Super-Mobilizers*, described the impact that a lack of exposure had on their students, and, in James' case, on himself. James spoke about his own experience as a young person growing up in a similar after-school program and how the exposure afforded through participation shaped his current practices with his own students:

> My mentor actually took me out of here, in order for me to open my eyes, like, 'Whoa! There's so much more out there.' So, I try to implement the same thing with our youth, because a lot of time, all they know is what we show them. If they're in the neighborhood 24-7, all they know is the neighborhood. The things they see, they are sponges, this is what they are exposed to. The kids feel like this is all that there is. They've never had curiosity about what's out there.

As he spoke, he became emotional recounting the difference he felt that participation in his after-school program had made to him: "The exposure I had here really made me who I am. I would not be here. Not just this situation, I would not be on this earth." On the other hand, Nikki contrasted her own experiences as a child with what she observed in her students:

> You are taken around or introduced to new opportunities on an everyday basis when you are in certain schools or certain zip codes or raised in certain geographical areas. To me, growing up, it was a part of life. It didn't matter, if I was at a summer camp, Bible school, school magnet programs, I was always introduced to new opportunities. I thought that was normal. Until you get into an urban area like ours that's so secluded when you think about it- these kids are going to school together, playing sports together, going to the same after school program- and that's it. So if there [are] no opportunities that are coming to them… they aren't being exposed to different places or experiencing new areas, new people, new ways of living, a new look, the way the grass grows different, the way the air breathes more clearly, the way the waves come across your foot. Just the exposure of life outside their norm, which a lot of our youth just would not have. It's the importance of showing them there's so much more than this radius we are stuck in. I believe it can be so much more than just educational exposure or athletics. A lot of people want to put low-income, African-American, poverty-stricken areas in a box. They want to give them the sports because the kids all think they are going to be NBA or NFL players, but you have to expose them to the world outside of their little box and then those minds begin to dream. And that's how we hope that that exposure pushes them to want to do something great that does not exist in their norm.

Interestingly, a review of the antecedents of situational interest identified autonomy support, along with instructor affective characteristics, as consistent variables across a number of studies (Linninbrink-Garcia et al., 2013). Self-Determination Theory (SDT) is a motivational theory that integrates innate psychological needs of competence, relatedness, and autonomy (see Deci & Ryan, 2000; Deci, Ryan, Vallerand, & Pelletier, 1991). Autonomy support, as a key component of SDT, can trigger situational interest in classroom settings (Hidi & Renninger, 2006) and is suggested to be a critical element to develop and sustain motivation (Deci et al., 1999). Interview participants did not frame exposure opportunities in terms of autonomy or choice for their students. Rather, it appeared that many activities offered by programs were not optional, or that participation in some activities was required in order to participate in others (e.g., attendance at tutoring was required if students wanted to attend a field trip). However, adults provided support for helping students make decisions around personal interests after exposure events, perhaps encouraging autonomy through that pathway. For example, Jade described how she followed up with students after career-focused activities, saying, "We'll sit down and talk to the students about how [the event was] and just listen to students, ask questions, like, 'Do you see yourself doing this?'"

It was unclear from the interviews if participants actively supported autonomy or took more of a passive stance towards follow-up. For example, Stacy mentioned, "We've had a few kids…wanting to learn more or be more involved in topics outside of the classroom." While she indicated that her team would support the student to develop those interests, including through brokering relationships with more expert individuals as necessary, the responsibility for initiating that process appeared to lie with the student. Locating responsibility with students can lead to missed opportunities to support interest development, as not all students know that asking for such help is allowed or appropriate (Ching et al., 2016; Schwartz, Kanchewa, Rhodes, Cutler, & Cunningham, 2016). Active follow-up from adults might promote continued interest development, perhaps supporting the transition from triggered situational interest to maintained situational interest and beyond.

Based on this analysis, exposure may function as an 'antecedent of the antecedents' listed by Linnenbrink-Garcia and colleagues (2013), without which, triggered situational interest would not have the chance to occur, let alone develop into deeper phases of interest. Clearly, further research is warranted to better understand if and how exposure to a variety of programming might influence youth outcomes and to determine how themes of exposure and encouragement from non-parent adults fit within theories of motivation and interest. Interestingly, the two individuals who most emphasized the importance of exposure were both *Super-Mobilizers,* suggesting that underlying beliefs about the importance of exposure may shape programmatic or organizational decisions on how to provide opportunities. The next section explores additional themes related to individual beliefs and brokering actions that were seen in the interviews, specifically those that comprise the construct of network orientation.

Network Orientation

Ching and colleagues' (2016) model of brokering in after-school settings includes a role for youth network orientations, but the function of the network orientation of adults is notably absent. Stanton-Salazar's (2011) model of institutional agents accounts for this, suggesting that adults with more negative network orientations are less likely to tap social networks for support, while those with positive network orientations would more likely mobilize resources contained within social networks. Though *Network Orientation* was not a significant predictor of resource mobilization in this study's quantitative analysis, evidence emerged from interview transcripts that indicated individual-level affective variables do play a role in either supporting or hindering transactional brokering actions. Recall that network orientation is suggested to be a multi-dimensional construct consisting of trust, advisability, and help-seeking history (Vaux, 1985). As described above, the factor structure of the Network Orientation Scale is not well defined, although the conceptual framework underlying it is well-described (Tolsdorf, 1976), providing a useful guide for content analysis of interview transcripts. Trust emerged as a central theme across all interviews, though in more complex ways than anticipated, as discussed further below. There was also some limited evidence for the role of advisability and help-seeking history. The results revealed highly complex reasoning patterns undertaken by adults during the brokering process that may require refinement of the theoretical and practical significance of network orientation factors for social network resource mobilization. These findings and their implications are discussed further in the sections below.

Trust

Trust frequently arose as a concern among interview participants. However, evidence emerged through interviews that indicated a more complex construct than captured by the Network Orientation Scale (Vaux, 1985) primarily because of the unique brokering role that participants played when connecting students with other adults. In this case, rather than functioning as a personal protective mechanism, trust played an important role in protecting the relationships that adults held with both students and other adults and influenced decisions on whether to undertake transactional brokering via another adult. The desire by after-school staff to provide youth with exposure to opportunities and encouragement discussed in preceding sections was equally tempered by their desire to protect these relationships.

Participants described hesitation around brokering if there was a lack of trust in other adults, reflecting a deep desire to protect one's students and shield them from potential harm.

Sierra said, “Safety is number one when it comes to students. You don't want to have just anybody around your kids.” Adults also seemed to be keenly aware of the racial and cultural biases that might impact their youth. Jade alluded to this while still bringing up safety concerns:

> Since our students are in high school, a lot of them, they don’t have fathers, they dress differently, I don't want them to be taken advantage of. Plus, there’s temptation. It’s more to cover my kids. In reality, stuff happens. But not with my kids. It just creates a border.

Regarding potential bias, Stacy was more direct, stating, “Some people want to serve and be helpful and teach a skill, but they don’t have experience working with students from low-income families or different cultural backgrounds. So, the concern is protecting the youth, in a way.” She continued,

> I’ve observed youth shut down very quickly when they are instructed by someone who comes in without any awareness that they have something to learn about the differences. Just not knowing some of these youth’s life experiences and thinking they’ll just come in a teach a skill.

Nikki, too, was straightforward in her response when asked about why she might hesitate to connect youth to new opportunities via other individuals, saying, “Because we are working with a population that most look down upon.” However, she also expressed a generally trusting philosophy, saying, “For the most part, people want to do good, or they want to feel like they are helping out or they are part of something bigger, and I guess I’m not afraid to ask.” Allison also indicated that trust in other adults facilitated collaborative efforts to support youth, noting, “If you come in, and you share same the goals and show you care for students, we’re definitely more open to wanting to partner.”

However, Jade also spoke at length about the challenges of connecting her students with other adults due to her concerns about youths’ maturity levels or an adult’s ability to manage student behavior. Jade described concern around asking friends for student support, saying, “Sometimes there’s hesitation if my student isn’t mature enough. It’s my friend, there has to be a boundary. I’m pretty good at knowing when to choose.” She continued, noting a difference in motivation among personal contacts versus those who might volunteer through her organization, “My friends are there to support *me*, but then I’ll ask them again and again. [Our organization’s] people, I don’t even have to ask, its offered.” Still, even for organizational volunteers, she expressed a desire to protect the other adult, as well: “We…make sure they are able to handle our kids. Before we waste our time, we need to see if you have the backbone for our students. I don’t want you to walk away defeated.” Sierra also mentioned prioritizing students based on maturity as a way to safeguard adult relationships:

> When we have a special guest I [have certain kids] take them around to show how we run our program. [The] core groups that I kind of rely on are ones that I can trust- they have the maturity, they're responsible and respectful.

The preceding analysis indicates that a singular trust in others, as a component of network orientation, may not fully capture the complexities of the interactions that occur as part of the brokering process. The *tertius iungus,* or the ‘third who joins’ (Obstfeld, 2005), has been suggested as an orientation toward social networks that better captures the beliefs of an agent who works to connect others, acting as a bridge across individuals. Based on the results of qualitative analysis, the *tertius iungus* orientation may be a more appropriate construct to include in model of brokering. This concept and its implications for theoretical understandings of brokering will be discussed more fully in Chapter 5.

Advisability

Another network orientation factor, advisability, also played a role in an adult's decision to undertake transactional brokering. Advisability refers to the perceived usefulness of asking for help. Again, Jade articulated how she perceived the utility of asking a friend for student support versus asking an organizational volunteer, saying, "Personal contacts are great- they will do it, but [our organization's volunteers] will go a step further. They already want to help. They ask me how they can help. I don't have to ask."

Sierra took a very pragmatic approach to deciding if she should make a connection, saying, "If I can't have a good grasp of what they want I'm not going to move forward. I need details of knowing exactly what it is that they want to do… or else I probably won't move forward." Sierra, perhaps due to her role as program manager, appeared to be more focused than other adults on advisability as it related to logistical concerns: "The time can be a challenge because the student wants it now. So, if I can't provide it because we have to wait on clearances [for a volunteer] or other things- then I'm trying to beat the time but also deal with safety."

Despite her focus on operations, her statements also convey an implicit understanding of the fleeting nature of situational interest. Stacy also acknowledged that youth interests are dynamic, saying, "We've had a few times when they lose interest, so that has happened." She further indicated that the degree of interest shown by a student impacted her decision to act as a broker for additional learning opportunities, noting, "We'll try to gauge interest, how serious it is, if they want to continue learning or becoming involved. If they actually are interested, we set up a time to do whatever it is they want to do." In this way, it appears that the degree to which students demonstrate interest may influence perceived advisability on the part of an adult.

Advisability was a key concern in the decision-making process for Nikki, a *Super-Mobilizer*. While she recognized that tapping into social networks was a mechanism to access resources otherwise unavailable to her, it was clear that she carefully considered the possible usefulness and consequences of making a connection on a case-by-case basis, particularly if power dynamics or hierarchies might be involved:

> I used to try to handle a lot of it on my own, until I recognized that a lot of resources that I didn't have access to or it was harder for me to get access to, other people did, and they wanted to be a part, to be a help to our mission or an individual family or so forth. So, my motivation for asking for assistance came from me recognizing that people just honestly wanted to be a part. [But I will ask myself], 'Do they appear to be open to hear me out or be able to assist, is there some kind of political agenda involved? If I ask for help, am I expected to give something back. Just being perfectly honest- whatever might be expected of me, is it ethical?' I guess there's a lot of different reasons why I would be reluctant to reach out to certain people, but I would say it would be certain people who are in high power positions.

These statements capture the complexity of the decisions that adults make when assessing the advisability of seeking network support for a student. Adults appeared to weigh the seriousness of a student's interest against both logistical constraints as well as the personal social consequences of asking for support. Importantly, this analysis of advisability suggests that network orientation is not a stable, unchanging trait, but may be highly context or situation dependent, a finding further discussed in the next section.

Help Seeking History

Attitudes towards help-seeking were not highly prevalent across interviews. In the few interviews where there was some discussion related to past help-seeking and its influence on current beliefs, the evidence appeared to provide minimal support for the idea that it might significantly hamper brokering actions. Contrary to Vaux and colleagues' (1986) suggestion that help-seeking history is a significant factor of network orientation and that a person's past experiences overall influence one's likelihood of seeking support, those that spoke about help-seeking in a historical context referred to experiences with specific individuals. Rather than appearing to be a deterrent to help-seeking in general, the historical interactions were more likely to cause reluctance to ask for help from that particular individual in the future. For example, Sierra said, "[The adult's] track record [can be a barrier to connecting adults/kids]. Because if the feedback of my clients, which are our kids, if that's not too good then I have to go find somebody else." Nikki agreed, though she referenced her own interactions with an individual rather than his or her interactions with her youth: "Sometimes I'm reluctant, because it depends on the person, especially the person in power that I need to reach out to. Has it been a positive interaction with them before, has it been negative?" She further described how past interactions might influence her future help-seeking behaviors, continuing,

> Other than that, I kind of feel comfortable asking, because I don't think that I ask enough. It's not like I go to the same people all the time. Maybe they've given me some indication that they are willing to assist, so I'm comfortable contacting them.

Although Nikki briefly touches upon the power differentials inherent in many relationships, she was the only one who expressed a general position towards seeking help from others, and then only as evidenced by the quotes above. As with the other factors of network orientation examined in this study, help-seeking history was not a broad-based belief held by adults but appeared to be a highly contextualized and dynamic construct that varied based on prior interactions with individuals.

There are few studies that specifically examine the relationship of historical help-seeking and network orientation outside of the field of mental health, and these studies are often focused on specific pathologies (e.g., schizophrenia). Larose, Bernier, Soucy, and Duchesne (1999) explored college students' help-seeking behaviors through structural equation modeling and found that attachment style explained a large amount of individual variance in student network orientation, which in turn predicted help-seeking behavior. Their study, however, used a random selection of items from each of the NOS subscales identified by Vaux (1985) and measured help-seeking behaviors following mentoring meetings over the course of a semester but measured network orientation at the start of the study, failing to account for possible changes in network orientation over the course of the intervention. Thus, although they provide some evidence that developmental attachment styles may moderate help-seeking behaviors as adults via network orientations, they do not account for the possibility that network orientation might be a fluid, context-specific construct. The authors do admit their study failed to account for the interpersonal characteristics of the adult mentors, such as approachability or trustworthiness, which might alter the network orientation of a student in that context.

The results of this qualitative analysis provide insight into the lack of influence network orientation scores had in the logistic regression model. Although network orientation factors emerged throughout the interviews, they appeared to function in more complex ways than suggested by the literature. Additional research is needed to further explore the role of each factor in the brokering process, and to determine if, in fact, network orientation is the appropriate construct for conceptual models of brokering in youth-serving organizations. The next section moves on from individual-level influences on brokering to explore themes that emerged at an organizational level.

Organizational Supports

An important trend emerged among non-mobilizers and mobilizers in the interviews. They all described organizational processes or procedures designed to support brokering, resulting in a reduced need to directly request support from personal contacts. Jade, a *Non-Mobilizer*, said,

> I'm able to connect with people who donate via [our staff person]. I have a student who wants to be this or that- she'll give me the names of people who give or we have a connection with who are willing to do a job shadow.

Allison, the second *Non-Mobilizer*, also indicated that her organization had a specific staff person assigned to brokering relationships for student support:

> Our director is out there in the community making those connections, so if we don't offer it, maybe one of our partners does. We can call them up and say, 'Hey, we have some students interested in what you have going on.'

The regular partner meetings Allison mentioned previously in which student interests facilitated linkages across organizations for student support, are an example of an organizational structure that supports brokering.

> Being able to make that connection- that's what happens in these partner meetings because everyone is able to communicate, it's like, 'Oh that's what you do. I have a kid in my program that would benefit from that,' So, it kind of happens organically in that sense.

It is interesting to note that Allison felt that the connections across organizations happened “organically” despite the regular gathering of partners in the same space serving as a necessary condition for those connections to occur.

Mobilizers (fewer than 9 resources mobilized) Stacy and Sierra also described how organizational infrastructure reduced their need to call upon personal connections. Sierra said, “Usually [connections] just walk through the door…I really don't have to go out, they usually come to us, or [my supervisor] has someone.” Stacy agreed, noting, “The connections I’ve reached out to are usually from an organizational standpoint.” She further explained that her organization was relatively new, but that she intended to create formal structures for brokering in the future: “We haven’t implemented any [formal structures for brokering] yet. We are in the planning process for those…one [example] would be apprenticeship.”

In contrast, the two *Super-Mobilizers,* James and Nikki, rarely discussed organizational infrastructure to support transactional brokering. Nikki spoke about the challenges that she faced of not having strong organizational systems for connecting students to opportunities:

> We aren’t a part of [the larger network of organizations in the area]. We are a private not-for-profit, so if we aren’t at the table, we aren’t going to hear about it. If that information doesn’t come directly to my email or if I’m not at that meeting or event, then no one is obligated to call and say let me update you on what took place.

Of interest, she noted that in addition to directly asking personal contacts for help, she also relied on social media networks to support brokering:

> Social media has made [asking for student support] a lot easier, too. I’m not directing it at one person, I’m directing it to an audience of people. Whoever is in that audience, if they would like to be a part, then they respond accordingly.

James expressed frustration with not having enough contacts to support each student to the degree he felt was needed, again reflecting on his own upbringing, becoming emotional and trailing off as he spoke:

> This is how [my mentor] got me to where I am. I was on a very narrow path- a couple friends died, and without a place like this, and people like her, I don't think...it hurts to think, we can't do this for everyone. If we could get the community involved…

He continued, emphasizing the value he placed on social relationships as a support system for youth, suggesting a belief-based motivation behind his brokering actions:

> At the end of the day, some kids think nobody cares. To see someone actually care, that's such a big thing. I don't think that some people who come here, volunteers- I don't think they know the impact every time they come. They don't understand how big a deal it is.

Even Jade, who described strong organizational capacity to support brokering relationships for youth, expressed a desire to have more adults who could develop similarly supportive relationships with students, saying, "I wish there were more of us. Sometimes I just don't have enough time, just having more help…If I can connect students with others, it lightens the load for us, but they are taken care of."

Interview participants frequently spoke in terms that reflected purposeful organizational commitments to relationship building. In fact, Allison explicitly said, "[Our staff person's] role is brokering the relationships, but she trusts me to make relationships, too." Small's (2009) concept of organizational brokerage, suggesting that individual gains from social network ties are often explicitly shaped by the organizations in which those relationships are embedded, can help explain these findings. He argues that an individual's social capital is created through both the person-to-person connections that are made within organizations, such as a student connecting with a supportive professor, but also that organizations themselves create networks that hold resources typically only accessible to members of those organizations. This is similar to Lin's (1999) assertion that social capital is both an individual and a collective property. However, Small differed from most social capital theorists by providing alternative mechanisms for resource mobilization. Most importantly, while he recognized that individual network orientations influence mobilization in a purposeful manner, he stated: "Mobilization is mediated, and sometimes perpetrated by, organizations" (2009, p. 18). In other words, organizational norms may force an interaction where one might otherwise not occur if left to individual actors. For example, a college may require a mentorship program for freshmen students that connects them with career resources and guidance. Other colleges may offer such programs, but do not mandate their use, resulting in a lower likelihood that students will avail of those resources.

Small's work, an extension of the social capital theories reviewed in Chapter 2, provides an alternative mechanism for resource mobilization beyond individual attitudes and beliefs. Applying his theory of organizational brokerage to the current study provides a useful lens to better understand observed differences in mobilization across interview participants despite their otherwise similar desires to connect students to resources. In the case of the *Non-Mobilizers*, Jade and Allison, brokerage pathways were institutionalized, and both of their organizations devoted a position to that work, meaning even with staff turnover, brokering activities would continue with the next employee. For Stacy and Sierra, the two *Mobilizers*, there was not a specific position devoted to brokering opportunity, but the institutions in which their programs were embedded were so rich with resources that it was not typically necessary to look beyond the organization for support. Finally, for Nikki and James, both *Super-Mobilizers*, the lack of organizational resources or possibly the lack of a formal process for mobilizing those resources meant that they were forced to rely on their own connections to support youth interests.

Small used neighborhood early childcare centers to delve into organizational brokering and lay out elements of his theory, explaining that while daycares are nearly ubiquitous in today's society, they can vary greatly in terms of their quality and their outcomes, even within close geographical proximity. After-school centers appear to be similar; the organizations represented in this study that were embedded within larger institutions and which received large amounts of public funding were more likely to have institutionalized brokerage practices. Those that were heavily dependent on philanthropic or community charity lacked the resources to enact strong organizational supports for brokering. Nikki referenced this challenge, expressing her frustrations:

> That's why we always have to have a seat at the table, but we often have to fight for our seat. We are needed, have been a beacon in the community. It is difficult to keep having to fight as a small non-profit. It is unfair to the children and the community we serve, and those who have sacrificed to get us where we are, all those personal connections who have given.

Unfortunately, detailed organizational data were not available for the quantitative surveys to support a post-hoc mediation analysis of organizational structures on the logistic regression model. However, in asking why adults who indicated no resource mobilization on surveys nevertheless indicated positive attitudes and beliefs related to brokering learning opportunities for youth, the qualitative interviews provided a useful explanation for these otherwise contradictory findings. Future work could examine how such organizational processes become institutionalized and possibly translate into student outcomes by using Small's (2009) organizational brokering framework.

Summary

The findings presented here provide novel insight into the characteristics of the social networks held by adults working in after-school programs, as well as into the attitudes and beliefs held by these individuals towards brokering learning opportunities for youth. While only *Total Contacts* predicted resource mobilization in the logistic regression, interview analyses provided additional information on how, why, and under what conditions adults might mobilize resources to support youth interest development. Although strong adult-youth relationships and youth interests did motivate brokering, exposure emerged as a consistent motivational theme worthy of future study. Network orientation factors, while evident in interviews, may require further theoretical refinement to have improved predictive ability. Finally, organizational factors emerged as an explanatory rationale for observed differences in resource mobilization. The next chapter will describe additional limitations of this study, propose improvements to the theoretical framework underlying the two research questions, suggest directions for future study, and discuss the practical implications of these findings.

CHAPTER FIVE: CONCLUSION

Introduction

As seen in Chapter 4, the participants in the current study had relatively similar social network structure, as measured by proxy indicators for social capital: network size and average prestige of contacts. The results of this analysis provide partial support for the quantitative research hypothesis of this study, showing *Total Contacts* to be a significant predictor of resource mobilization, although *Average Prestige* and *Network Orientation* were not. Qualitative interviews provided descriptions of adult brokering actions driven by youth interests, strong relationships with youth, and a desire to expose youth to numerous opportunities. However, they also revealed complex reasoning patterns and beliefs related to brokering as well as a possible moderating role of organizational structure. The implications of these findings for theory and practice are discussed further below, along with study limitations and directions for future research.

Implications for Theory

Implications for Interest Theory

An unexpected finding from qualitative analysis in this study was the importance of exposure as a precursor to interest development. Although a large body of literature exists on the possible mechanisms that lead to gender or racial differences in certain occupations, particularly within STEM fields, exposure to new learning opportunities as described by study participants is not highly prevalent in the research literature. Some authors have examined the impact of single-dose exposure at STEM fairs on student interest. For example, Weston and colleagues (2008) found that 4th through 6th grade girls reported significantly higher interest in STEM fields following a one-day 'girls-only' fair, while Kurtz, Yoder, and Zu (2015) found limited differences in career interests between students who had attended a STEM fair versus a control group.

It is possible that the larger interest gains seen in the first study were partly due to the girls-only focus of the event. From a global perspective, gender differences in both professional and household work are common across cultures, with societal norms suggested as one key driver of this divide (Evans, 2016). However, Evans (2016) further argued that norms are primarily shaped by exposure, finding that men in heavily gender-biased cultures who grew up sharing care responsibilities with women did not perceive tasks such as cooking and cleaning as feminine. Thus, events such as a girls-only STEM fair may influence interest through exposure to appropriate role models or a challenging of social norms as opposed to directly influencing STEM interest.

Hartung and colleagues (2005) reviewed literature on vocational development, finding substantial support for the idea that children's beliefs about work and career aspirations begin to form at a young age, with interests and ability beliefs aligning during adolescence to influence career choice. They further documented evidence of differences by gender, race, and ethnicity in occupational aspirations, with children from lower socio-economic levels and marginalized racial or ethnic groups tending to hold less diverse and prestigious occupational aspirations than their white peers. In part, these aspirations are driven by contextual factors; for example, children living in poverty perceived fewer job opportunities for themselves as compared to children from wealthier families (Weinger, 1998). Additionally, Hartung and colleagues reviewed study findings that indicated white children held a greater diversity of occupational aspirations than their African-American peers, in part due to the ability of white children to project themselves into future career roles. Finally, the authors concluded that aspirations and expectations widen across race and socio-economic status as children age, suggesting they become more aware of barriers to goal achievement over time.

In summary, it is possible that exposure functions in several possible ways; 1) to support the development of triggered situational interest; 2) to challenge perceptions of social norms and; 3) to provide representative role models based on gender, race, ethnicity, or other criteria within an otherwise skewed occupational field. Future research in this area should explore the effect of exposure within each of these categories, as well as in how they interact to support interest development and career aspirations. Additional questions remain around dose and quality of exposure, as well as for the social factors that might continue to impact interests following an exposure. The next section explores social aspects of continued youth interest development via adult brokering actions in greater detail.

Implications for Brokering Theory

The results of the present study pointed to a need to revise current models of brokering to better reflect the complexities of the relationships that adults in after-school settings navigate. Stanton-Salazar's (2011) framework for the study of institutional agents, or non-kin adults working with low-status youth, postulated that efficacy as an agent is dependent on social network features (such as size and diversity of a network) and one's network orientation. While the quantitative analysis provided support for the idea that a larger network size may influence one's ability to mobilize resources through social networks, average prestige did not. This may be because the participants in the current study were not operating as critically empowered institutional agents, as defined by Stanton-Salazar (2011). He argued that adult agents devoid of a ‘critical consciousness’ may focus on youth assimilation into dominant social structures rather than empowering structural change and counterstratification of social norms. The current study did not use the empowerment framework, nor was it designed to explore the themes of social justice that feature heavily in Stanton-Salazar’s work. However, this study does lend support to his idea that agents may play roles along a continuum; participants described an early stage of youth development, with exposure to potential interests being a primary goal. It is possible that, if and when students develop deeper interests, adult brokering actions shift to making use of more powerful or prestigious contacts. Future research is needed to better understand brokering as a diverse set of actions by non-family adults.

More important for theoretical consideration was the finding that network orientation did not predict resource mobilization. The qualitative interviews found that elements of network orientation were considered in brokering decisions but appeared to operate in ways that are fundamentally distinct from previously published models. As discussed in Chapter 1, Stanton-Salazar (2011) developed a framework that includes adult network orientation as an important factor in accessing networked resources, while Ching and colleagues (2015) include a role for student network orientation in their model of brokering, but do not consider that of the adults. Other researchers have found that youth trust is, in fact, an important component of the brokering process, but the results of the current study indicate that adult attitudes and beliefs also play a role in their brokering actions, which Stanton-Salazar (2011) might ascribe to one’s network orientation. As described in the literature, network orientation is strongly influenced by past events throughout an individual's life course, starting from early development, and often functions as a mechanism of self-preservation following harmful or negative social interactions (Vaux et al., 1986; Wallace & Vaux, 1993). This contrasts with the highly context-specific and selfless descriptions by interview participants as they spoke about decisions related to brokering, suggesting the construct of network orientation does not accurately capture the thought processes underlying their decisions. Below, suggestions for alternative constructs are discussed along with possible revisions for theoretical frameworks to be used in future research.

Alternative Constructs for Network Orientation

Burt (2000) argued that the boundary spanning activities of brokers in social networks with structural holes are consistent with a *tertius gaudens* (TG) orientation, in which individuals may use their position to control the flow of information across networks for personal gain. While *tertius gaudens* has been explored within business contexts as a useful construct to explain adversarial or competitive relationships (Burt, 2005), it neglects the more altruistic forms of brokering of interest in the current study. Both network orientation and TG orientation constructs focus on mobilization of resources for personal support or benefit, failing to account for individuals who create network connections that most directly benefit others. The *tertius iungens* orientation (from the Latin for the 'third who joins') provides a model to understand those brokers who support relationship building across disconnected networks.

According to Obstfeld (2005), the *tertius iungens* (TI) orientation is "a strategic, behavioral orientation toward connecting people in one's social network by either introducing disconnected individuals or facilitating new coordination between connected individuals" (p. 102). He found that individuals with a TI orientation had higher levels of involvement with innovation in their organizations, which he attributed to their ability to select novel resources and ideas from across multiple networks. Other researchers within the field of organizational theory and management have suggested that a TI orientation can help account for the variability of strategic decisions made by individuals within organizations; in other words, contextual factors of the environment interact with individual orientations to influence decision-making (Kauppila, Bizzi, & Obstfeld, 2017). This might more closely capture the complexities of the decision-making processes described by interview participants and could provide a new model for examining differences in resource mobilization; larger studies that include measures of TI orientation could test mediating and moderating variables to better understand who mobilizes resources and under what conditions. Again, the field of organizational science offers more theoretically refined models to explain how brokers use social capital and networked resources, under what conditions, and why (e.g., Kent, Sommerfeldt, & Saffer, 2016; Quintane & Carnabuci, 2016), which may prove beneficial to researchers seeking to investigate these constructs within educational contexts.

Despite these improvements over the use of network orientation, there are still challenges that will require additional research to further refine theories. For example, the *tertius iungens* literature is centered around adult beliefs in organizational settings that typically only include other adults. Further, few studies have examined networking activities that have a primarily altruistic function; even proponents of TI recognize that connecting other adults may ultimately result in positive returns to the joiner, and much of the literature assumes a rational approach to relationship development with actors making conscious decisions for personal gain (Collins-Dogrul, 2012). Additionally, the protective stance assumed by adults working with children in after-school settings introduces a novel aspect to relational networking that is not well-described in existing literature. Finally, as discussed in Chapter 4, this study provided additional evidence to support the influence of organizations on social resource mobilization, suggesting that incorporating theoretical views such as organizational brokering (Small, 2009) into a broader ecological model may also be useful.

In line with the ecological theories described in Chapter 1, revisions to models of brokering that consider the interplay of individual, interpersonal, and organizational factors may better capture the mechanisms by which adults engage in brokering to support youth interests. For example, a model in which a high *tertius iungens* orientation might be further enhanced by situation-dependent factors such as high-trustworthiness of another adult who has been thoroughly vetted by the organization could prove to have greater explanatory power over current conceptual models. Based on the findings of this study, future areas of research should focus on developing not only these improved theoretical models, but also improved instruments for measurement, since there are none currently designed to assess learning brokerage beliefs and individual orientations. As interest in the practice of brokering grows for educational researchers and practitioners, applying and adapting key research evidence from other fields such as organizational theory, innovation, and management, among others, may be required to advance our understanding.

Implications for Practice

This study provided a detailed examination of the social networks, brokering practices, and beliefs of adults working with youth in after-school programs. Clearly, it is important that future research continue to examine how the brokering actions of adults in after-school programs impact student interest development, learning opportunities, and ultimately, academic and life outcomes. However, under the assumption that providing youth with opportunities to deepen interests and to connect with supportive adults in their fields of interests is of inherent benefit, the present study suggests that adult social capital is not a primary driver of such efforts. Personally-held network structures may not be as important as previously thought for connecting youth to learning opportunities when considered within the context of organizational social capital. Since only network size was a significant predictor of resource mobilization, and additional qualitative evidence supported the idea that organizational capacity may mitigate the need to call upon personal contacts, it is plausible that interventions targeting both organizational processes and individual beliefs may be more reasonable areas for change than individual network composition.

Consistent with other published work (e.g., Ching et al., 2015), the designation of a brokering 'point person' within an organization supported adult brokering efforts in the current study, streamlining access to other supports and reducing the need to call upon personal contacts. However, recall that Jade acted as a go-between for her students and outside contacts, enabling communication between the two parties without any reduction in her own workload. By offloading some responsibility to the other adult, after-school staff could use that time to support other students, thus expanding organizational capacity and reach. Jade herself alluded to this noting,

> I wish there were more of us. Sometimes I just don't have enough time…just having more help. Honestly- we just need time. If I can connect students with others, it lightens the load for us, but they are taken care of.

However, despite her understanding of this challenge, she and other interview participants highlighted trust as a primary barrier to overcoming it. To address these concerns, organizations might consider ways in which they support the development of trust among adults. The field of education has explored trust as an essential element in school reform and student achievement, teacher preparation, and overall school climate (Bryk & Schneider, 2003; Goddard, Salloum, & Berebitsky, 2009; Louis, 2007; Moll & Arnot-Hopffer, 2005) There are evidenced-based interventions and resources available to support trust development among school staff (see Brewster & Railsback, 2003, for example) that could be adapted for after-school settings.

After-school programs, frequently challenged with limited budgets and their reliance on volunteers, may struggle to implement interventions that are time- or cost-intensive. However, interaction is required for the development of trust, so organizations could consider new methods of communication among staff and non-staff adults, such as social media groups or private online forums to allow asynchronous discussion of concerns, ideas, and questions related to students. These could be supplemented by in-person events, such as those described by interview participant Allison; monthly meetings with partner organizations allowed for organic discussion of student needs and supported novel connections among adults. As noted by Lee (2010), the transfer of resources held by social networks is not simply dependent on the willingness of an individual to ask, but also on the willingness of the other to give. Based on the results of this study, willingness from both parties may ultimately depend upon a foundation of trust, elevating interpersonal factors above social network characteristics as important targets for intervention. Although organizations might need to financially invest in these relational activities, it could also provide a mechanism to support a greater number of students at the same or reduced cost, providing an incentive for funders and directors while also improving student outcomes.

Study Limitations

The present study has several limitations that should be noted. First, the small sample size may limit the overall generalizability of the statistical analysis. As noted in the methods, several adjustments were made to account for small sample size, including increasing the threshold for statistical significance. This increases the possibility of a Type I error, in which significant differences are due to chance alone. However, only *Total Contacts* was significant in the regression model, a finding that is both supported by theoretical literature and replicated by other empirical studies. This suggests that the results, while provisional, still provide meaningful insight.

Second, the quantitative survey asked respondents to report on past behavior related to brokering, a process which may be subject to recall bias. Further, because the position generator instrument is an approximation rather than an exact mapping of participant social networks, it is possible that individuals mobilized resources through contacts that were not listed on the survey. Finally, the survey did not ask participants to differentiate between different types of brokering actions that occurred through resource mobilization, resulting in an estimation of adult brokering activity rather than a more precise quantification. Qualitative interviews focused on the relational aspects of brokering, but the survey may have also captured brokering related to information seeking or other forms of support. A prospective study design in which participant brokering behaviors are tracked and categorized over time could provide a more adequate answer to this question.

Finally, it is possible that interview participants were not representative of the remaining study sample. Although interview participants were selected purposefully to represent each of the three mobilization groups, these categories were created based on arbitrary cutoffs of the quantitative responses. Because not all survey participants agreed to be contacted for follow-up, the number of possible interview participants in each group was limited and was further based on their own interest and availability. Nevertheless, interview analysis found clear patterns across the three groups, lending support to the cutoff values and providing valuable insight into quantitative results.

Summary

Clearly, it is important that future research also begin to quantify the impact on students as a result of adult brokering actions. However, this study is a first step towards improved understanding of the mechanisms by which adults mobilize available social capital resources to support student interest development. Social network characteristics were found to be less important than initially hypothesized, in part due to the organizational resources and structures that mitigated the need for individuals to draw upon personally held resources. It is unclear if and how brokering learning opportunities translated into deepening interest in youth, given the focus by most adults on supporting triggered situational interest via exposure to diverse opportunities. It is possible that later stages of interest development might require a heavier reliance on personal networks or those contacts holding higher prestige occupations.

Finally, revisions to models of brokering were suggested based on findings that showed the attitudes and beliefs of participants were not adequately described by the network orientation construct. In particular, this study revealed that after-school adults play a unique and understudied role in supporting youth, particularly those in marginalized communities. Their desire to protect both students and other adults throughout the relationship development process was a source of internal conflict for many, with interviews demonstrating carefully weighed decisions prior to creating a connection. Suggestions for organizations to support the development of trust among adults were discussed as a mechanism for increasing brokering as well as for capitalizing on human resources to reach a greater number of students in need.

APPENDIX A: SURVEY INSTRUMENT

Adult Survey

Thank you for taking part in this research study. Your responses will be kept confidential.

Part 1: Social Beliefs

For the following items, please indicate your level of agreement with each statement by circling the option that most closely matches your beliefs.

	Strongly Disagree	Disagree	Agree	Strongly Agree
Sometimes it's necessary to talk to someone about your problems.	1	2	3	4
Friends often have good advice to give.	1	2	3	4
You have to be careful about who you tell personal things.	1	2	3	4
I often get useful information from other people.	1	2	3	4
People should keep their problems to themselves.	1	2	3	4
It's easy for me to talk about personal and private matters.	1	2	3	4
In the past, friends have really helped me out when I've had a problem.	1	2	3	4
You can never trust people to keep a secret.	1	2	3	4
When a person gets upset they should talk it over with a friend.	1	2	3	4
Other people never understand my problems.	1	2	3	4
Almost everyone knows someone they can trust with a personal secret.	1	2	3	4
If you can't figure out your problems, nobody can.	1	2	3	4
In the past, I have rarely found other people's opinions helpful when I've had a problem.	1	2	3	4
It really helps when you are angry to tell a friend what happened.	1	2	3	4
Some things are too personal to talk to anyone about.	1	2	3	4
It's fairly easy to tell who you can trust and who you can't.	1	2	3	4

	Strongly Disagree	Disagree	Agree	Strongly Agree
In the past, I've been hurt by other people I've confided in.	1	2	3	4
If you confide in other people, they will take advantage of you.	1	2	3	4
It's OK to ask favors of people.	1	2	3	4
Even if I need something, I would hesitate to borrow it from someone.	1	2	3	4

Part 2: Social Connections

Please read the instructions carefully before completing this section.

Below you will find a list of jobs or occupations. For each occupation, you will be asked to indicate if you know anyone with that job. **Only list individuals who you would feel comfortable making small talk with if you ran into them on the street.**

1. If you do not know anyone in that occupation, *please leave the row blank.*
2. If you know someone in the listed occupation, indicate if that person is a family member, friend, a colleague at your current workplace, or a colleague at a different workplace.
    a. If you know multiple people with the same occupation, only list the person who falls first in this ordering: 1) family member, 2) friend, 3) Colleague or acquaintance at your current workplace, 4) Colleague or acquaintance at a different workplace.
3. If you know someone in the listed occupation, indicate if that person is a male or female.
4. Of the contacts that you circled, have you asked any of them for information or resources to support one of your students in the past 6 months (example: information on an upcoming special event, a contact with expertise in an area of student interest, etc.)? Please place an X in the corresponding row if YES.

Part 2: Social Connections- Continued

Here is an example:

My female friend is a chef at a local restaurant, but I have not asked her about support for any of my students. My father is a doctor at the local hospital, and I also asked him if he would speak to my student who is interested in a career in medicine. I also have an acquaintance who is a pediatrician, but family member falls first in order in step 2, above, so I will only circle 'family member'.

Do you know anyone who works as a…	*Is this person a...*				*Is this person a...*		*Have you…*
Occupation	Family Member	Friend	Colleague or acquaintance at your **current** workplace	Colleague or acquaintance at **a different** workplace	Male	Female	Asked for student support past 6 mo.? **(X if yes)**
Chef or cook	1	2	3	4	M	F	
Physician or surgeon	1	2	3	4	M	F	**X**

Do you know anyone who works as a…	*Is this person a...*				*Is this person a…*		*Have you…*
Occupation	Family Member	Friend	Colleague or acquaintance at your **current** workplace	Colleague or acquaintance at **a different** workplace	Male	Female	Asked for student support past 6 mo.? **(X if yes)**
Chef or cook	1	2	3	4	M	F	
Physician or surgeon	1	2	3	4	M	F	
Animal caretaker (non-farm)	1	2	3	4	M	F	
Auto mechanic	1	2	3	4	M	F	
Architect	1	2	3	4	M	F	
Real estate broker/salesperson	1	2	3	4	M	F	
Writer or author	1	2	3	4	M	F	
Social worker	1	2	3	4	M	F	
Computer Programmer	1	2	3	4	M	F	
Education administrator	1	2	3	4	M	F	
Biologist	1	2	3	4	M	F	
Maid or housekeeper	1	2	3	4	M	F	
Hairdresser or stylist	1	2	3	4	M	F	
Photographer	1	2	3	4	M	F	
Artist (fine arts/media/etc.)	1	2	3	4	M	F	
Lawyer or judge	1	2	3	4	M	F	
Recreation or fitness worker/trainer	1	2	3	4	M	F	
Musician or singer	1	2	3	4	M	F	
Police officer	1	2	3	4	M	F	
Engineer	1	2	3	4	M	F	
Veterinarian	1	2	3	4	M	F	
Construction worker	1	2	3	4	M	F	
Childcare workers	1	2	3	4	M	F	
Pilot	1	2	3	4	M	F	
Librarian	1	2	3	4	M	F	
University professor	1	2	3	4	M	F	
Media/Communications specialist	1	2	3	4	M	F	
Physical therapist	1	2	3	4	M	F	
Business management specialist	1	2	3	4	M	F	

Do you know anyone who works as a...	*Is this person a...*				*Is this person a...*		*Have you...*
Occupation	Family Member	Friend	Colleague or acquaintance at your **current** workplace	Colleague or acquaintance at **a different** workplace	Male	Female	Asked for student support past 6 mo.? **(X if yes)**
News reporter or correspondent	1	2	3	4	M	F	

Part 3: Demographics

1. What is your date of birth (day/month/year)?
   ____

2. How long have you worked with your current youth-serving organization?
   - ○ Less than 6 months
   - ○ More than 6 months but less than 1 year
   - ○ At least 1 year but less than 3 years
   - ○ At least 3 years but less than 5 years
   - ○ 5 years or longer

3. What is the highest level of education you have completed?
   - ○ Some high school
   - ○ High school diploma or GED
   - ○ Associate's degree
   - ○ Bachelor's degree
   - ○ Master's degree
   - ○ Doctoral or other terminal degree
   - ○ Other, please list: ____

4. What is your gender?
   - ○ Male
   - ○ Female
   - ○ Prefer not to answer

5. Are you of Hispanic, Latino, or Spanish origin?
   - ○ Yes
   - ○ No

6. How would you describe yourself (check all that apply)?
   - ○ American Indian or Native Alaskan
   - ○ Asian
   - ○ Black or African American
   - ○ Native Hawaiian or Other Pacific Islander
   - ○ White
   - ○ Other, please specify: ____

Part 4. Follow-up (optional)

If you agree to be contacted at a later date for a 30-45 minute follow-up interview, please provide your contact information below.

Email address:___________________________ Phone Number:_________________________

APPENDIX B: IRB APPROVAL LETTER

University of Central Florida

University of Central Florida Institutional Review Board
Office of Research & Commercialization
12201 Research Parkway, Suite 501
Orlando, Florida 32826-3246
Telephone: 407-823-2901 or 407-882-2276
www.research.ucf.edu/compliance/irb.html

Determination of Exempt Human Research

From: **UCF Institutional Review Board #1**
FWA00000351, IRB00001138

To: **Katherine D. Philp**

Date: **March 13, 2018**

Dear Researcher:

On 03/13/2018, the IRB reviewed the following activity as human participant research that is exempt from regulation:

Type of Review:	Exempt Determination – Category 2 – Adult Participants completing Surveys; n=200
Project Title:	Investigating the relationship between adult social capital and youth Connected Learning outcomes.
Investigator:	Katherine D. Philp
IRB Number:	SBE-18-13784
Funding Agency:	
Grant Title:	
Research ID:	N/A

This determination applies only to the activities described in the IRB submission and does not apply should any changes be made. If changes are made and there are questions about whether these changes affect the exempt status of the human research, please contact the IRB. When you have completed your research, please submit a Study Closure request in iRIS so that IRB records will be accurate.

In the conduct of this research, you are responsible to follow the requirements of the Investigator Manual.

This letter is signed by:

Signature applied by Jennifer Neal-Jimenez on 03/13/2018 10:20:28 AM EDT

Designated Reviewer

APPENDIX C: INTERVIEW PROTOCOL

Protocol for Semi-Structured Interviews

- What is your role with the organization? Tell me a little about your job duties.
- Is there time allotted in your program to interact with youth informally as a way to get to know each other (for example, is there free time or down time where they drive the topics of conversation)?
- Have any students ever asked you for assistance in finding new learning opportunities related to their personal interests (such as a science class, music program, computer training, etc.)?
    - If yes, please describe what type of help they requested?
        - How did you help?
    - If no, how might you help a student who comes to you asking to find new learning opportunities for writing computer code/producing music/activity the adult is unlikely to be personally familiar with.
- Do you suggest that students look into other learning opportunities based on their personal interests?
    - Why or why not?
- How do you find out about different opportunities that might interest your students?

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